

PANAMA AND THE CANAL 100 YEARS AGO (1924)

**Illustrated with 100 Historical
Photographs and Stories**

By

Jaime Massot Hernández

2024

© 2024 Jaime Massot Hernández. All rights reserved.

No part, photograph or writing of this document may be reproduced, duplicated, or transmitted in any form, whether electronic or printed, without explicit permission. Unauthorized recording or distribution of this publication is strictly prohibited.

Dedication

To my relatives who labored tirelessly in the construction and operation of the Panama Canal during the 19th and 20th centuries. Your strength, determination, and devotion have left an indelible mark on history and on our family's legacy. This book is a tribute to your hard work and sacrifices, which helped shape one of the greatest achievements of human endeavor. May your stories and contributions be remembered for generations to come.

Epigraph

"Through these images, we glimpse a century past - where the hands of many forged a path for the world, and the waters of history flowed anew."

Preface

A century ago, the Panama Canal stood as one of the most remarkable feats of human engineering, a gateway that bridged oceans and cultures alike. As I embarked on the journey of writing this book, I found myself not only delving into the monumental history of this marvel but also reconnecting with a deeply personal legacy.

My family's history is intertwined with the story of the Panama Canal. My ancestors lived through the era when the canal was not just a passageway but a symbol of progress, ambition, and international cooperation. Their experiences, passed down through generations, have been a source of inspiration for this book. Through their eyes, I learned to appreciate the profound impact the canal had on both the local communities and the world at large. This book is, in many ways, a tribute to them and to all those who contributed to the canal's enduring legacy.

In the spirit of blending tradition with innovation, I also chose to incorporate a modern tool - artificial intelligence - into the creation of this book. Through the use of ChatGPT, an AI developed by OpenAI, I was able to explore new ways of writing and organizing the rich history that the Panama Canal holds. The AI assisted in crafting narratives, providing historical context, and even in the restoration of the photographs, ensuring that each story is told with both accuracy and depth.

This book is more than just a historical account; it is a bridge between the past and the present, a way to honor the legacy of those who came before us while embracing the technological advances of our time. As you turn these pages, I invite you to journey back 100 years, to see Panama City and the Canal as it was in 1924, and to imagine the countless lives it touched along the way.

Thank you for joining me in this exploration of history, family, and innovation. May the stories and images within motivate you as they have inspired me.

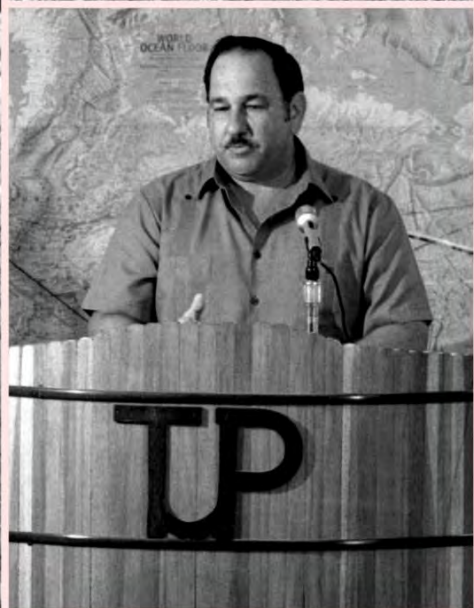
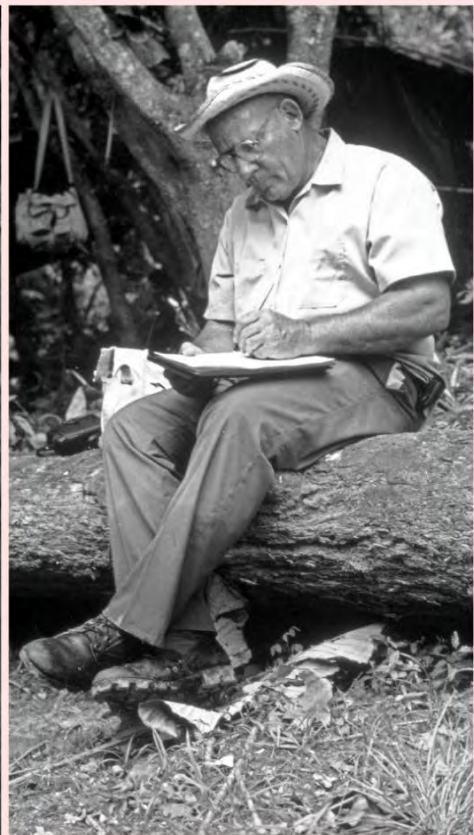
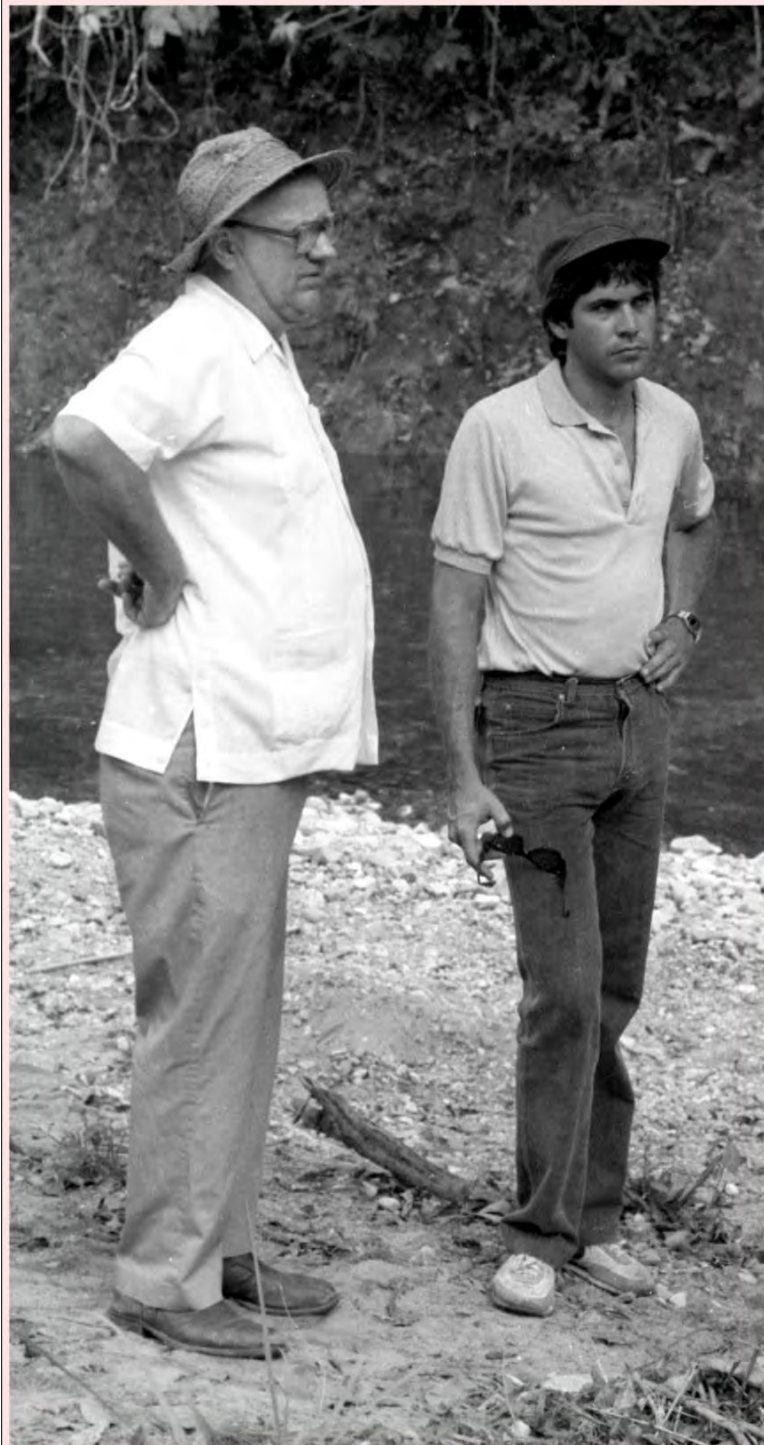
A handwritten signature in black ink, appearing to read 'Jaime Massot Hernández', with a stylized flourish at the end.

Jaime Massot Hernández

August 15, 2024.

Acknowledgements

To my three greatest mentors during my 42 years of service at the Panama Canal (1980-2022); William (Bill) Bentley Shaw (Meteorological and Hydrographic Branch), Frank Henry Robinson (Operations Section), and Guillermo (Billy) Van Hoorde (Canal Improvements Office). Thank you for your unwavering support, invaluable teachings, and cherished friendship.



Contents

Dedication	i
Epigraph	ii
Preface	iii
Acknowledgements	iv
Contents	v
I. Introduction	1
II. The World in 1924	2
A. January	2
B. February	2
C. March	3
D. April	3
E. May	3
F. June	4
G. July	4
H. August	4
I. September	5
J. October	5
K. November	6
L. December	6
III. Panama Canal for the Fiscal Year ended June 30, 1924	7
A. Net revenue of the Canal and its auxiliaries	7
a. Traffic for Fiscal Year 1924	7
b. Nationality of vessels	8

c.	Free transit of public vessels and vessels for repairs	8
d.	Trade routes and cargo.....	8
e.	Dual measurement system	9
f.	Lockage's and lock maintenance	9
g.	Power for Canal Operation	10
h.	Water Supply	11
i.	Flood of October 1923	11
j.	Slides.....	13
k.	Aids to Navigation	14
l.	Accidents.....	14
m.	Salvage Operations	16
n.	Repairs to vessels - Mechanical Work.....	17
o.	Commissary System.....	17
p.	Hotels and Restaurants.....	18
q.	Lands and Buildings	18
r.	Clubhouses.....	19
s.	Panama Railroad Steamship Line	19
IV.	The city of Panama 100 years ago	20
V.	Hernández legacy at the Panama Canal (XIX-XXI).....	24
VI.	Ernest Hallen photographs.....	28
VII.	100 historical photographs and stories.....	31
	Epilogue	135
	Bibliography	136
	Other books.....	137

I. Introduction

In 1924, the Panama Canal stood as a symbol of human ingenuity and ambition, just ten years after its completion. It was a marvel of modern engineering, transforming global trade and altering the geopolitical landscape. This book invites you to journey back to that pivotal time, offering a rich visual and narrative exploration of the canal's early years through a collection of rare and evocative photographs by Ernest "Red" Hallen (1875-1947); retired as the official photographer of the Panama Canal in 1937, after 30 years of service.

The photographs presented in this book capture the essence of life around the canal in 1924. Each image serves as a historical snapshot, depicting the vast infrastructure, the ships that navigated its waters, and the vibrant communities that flourished along its banks. These carefully restored and improved photos not only showcase the engineering marvel but also tell the story of the people who lived and worked in its shadow, providing a comprehensive view of a world in transition.

These captivating images are accompanied by the relevant events of the date they were captured. From the extraordinary stories of the ships, the maintenance and improvement work, world trade through the Canal, living conditions of the workers; to the terrible discrimination of the existing Gold and Silver Payrolls. These narratives offer a view of the human side of the history of the canal 100 years ago.

As the canal approached its first decade of operation in 1924, its significance had already extended far beyond its immediate function. It had become a critical geopolitical asset, influencing international relations and trade routes on a global scale. This book delves into the broader implications of the canal during this period, offering insights into its strategic importance and the ways it continued to shape the world long after the last stone was laid.

"PANAMA AND THE CANAL 100 YEARS AGO (1924) - Illustrated with 100 Historical Photographs and Stories" is more than just a historical account; it is a tribute to the enduring legacy of the Panama Canal. Through the lens of Ernest "Red" Hallen, this book commemorates the visionaries, workers, and communities who made the canal possible and celebrates the canal's ongoing impact on the world today. As you turn these pages, you will be transported to a time when the canal was still new, yet already an indelible part of global history.

II. The World in 1924¹

MCMXXIV was a leap year starting on Tuesday of the Gregorian calendar, the 1924th year of the Common Era (CE) and Anno Domini (AD) designations, the 924th year of the 2nd millennium, the 24th year of the 20th century, and the 5th year of the 1920s decade.

A. January

- January 12 – Gopinath Saha shoots Ernest Day, whom he has mistaken for Sir Charles Tegart, the police commissioner of Calcutta, and is arrested soon after.[1]
- January 20-30 – Kuomintang in China holds its first National Congress, initiating a policy of alliance with the Soviet Union and the Chinese Communist Party.
- January 21 – The Earl of Athlone is appointed Governor-General of the Union of South Africa, and High Commissioner for Southern Africa.
- January 22 – Ramsay MacDonald becomes the first Labor Prime Minister of the United Kingdom.
- January 25 – The first Winter Olympics, the 1924 Winter Olympics open in Chamonix, in the French Alps.
- January 26 – Petrograd (Saint Petersburg) is renamed Leningrad; it will revert to Saint Petersburg in 1991.

B. February

- February 1 – The United Kingdom recognizes the Soviet Union.
- February 5 – GMT: A radio time signal is broadcast for the first time, from the Royal Greenwich Observatory.
- February 14 – The Computing-Tabulating-Recording Company (CTR), based in the U.S. state of New York, is renamed International Business Machines (IBM).
- February 22 – Treaty of Rome: The Kingdom of Italy annexes the Free State of Fiume, and the Kingdom of Serbs, Croats and Slovenes absorbs Sušak.
- February 22 – Calvin Coolidge becomes the first President of the United States to deliver a radio broadcast from the White House.

¹ <https://en.wikipedia.org/wiki/1924>

C. March

- March 3 – The 407-year-old Islamic caliphate is abolished when Caliph Abdülmecid II of the Ottoman Caliphate is deposed. The last remnant of the old regime gives way to the reformed Turkey of President Kemal Atatürk.
- March 6 – İsmet İnönü forms a new government in Turkey (2nd government).
- March 15 – Horacio Vásquez wins the Dominican Republic general election, becoming president, coinciding with the end of United States military occupation.
- March 24 – Jean Sibelius conducts the world premiere of his Symphony No. 7 in Stockholm.
- March 25 – The Second Hellenic Republic is proclaimed in Greece.
- March 29 – In France, the Third Ministry of Raymond Poincaré begins.

D. April

- April 1 – Adolf Hitler is sentenced to 5 years in Landsberg Prison in Germany for his participation in the 1923 Beer Hall Putsch (he serves less than 9 months).
- April 1 – The first revenue flight for Belgium's Sabena Airlines takes place.
- April 6 – Italian general election: Fascists win the elections in Italy with a two-thirds majority.
- April 13 – The Greek republic referendum favors formation of the Second Hellenic Republic.
- April 23 – The British Empire Exhibition opens in London; it is the largest colonial exhibition, with 58 countries of the empire dramatically represented.

E. May

- May 4 – The Summer Olympics opening ceremonies are held in Paris, France.
- May 8 – Lithuania signs the Klaipėda Convention with the nations of the Conference of Ambassadors, taking the Klaipėda Region from East Prussia and making it into an autonomous region.
- May 10 – In the United States, J. Edgar Hoover is appointed head of the Federal Bureau of Investigation.
- May 11 – Mercedes-Benz is formed by the merging of companies owned by Gottlieb Daimler and Karl Benz.

- May 26 – Harry Grindell Matthews attempts to demonstrate his "death ray" to the War Office in the United Kingdom.
- May 30 – Italian socialist leader Giacomo Matteotti speaks out against Fascism. A few days later he is kidnapped and murdered in Rome.

F. June

- June 2 – U.S. President Calvin Coolidge signs the Indian Citizenship Act into law, granting citizenship to all Native Americans born within the territorial limits of the United States.
- June 5 – Ernst Alexanderson sends the first facsimile across the Atlantic Ocean, which goes to his father in Sweden.
- June 7-16 – Rudolf Steiner delivers his Agriculture Course at Koberwitz beginning of the organic agriculture movement.
- June 8 – George Mallory and Andrew Irvine are last seen "going strong for the top" of Mount Everest by teammate Noel Odell at 12:50 P.M. The two mountaineers are never seen alive again.
- June 13 – In Hungary, a devastating tornado, "Wildkansas", strikes, in 3 hours leaving a 500-1500m wide and 70 km long path of destruction from landfall at Bia to its end near Vác, completely destroying the village of Páty. Nine people are killed, 50 injured and many left homeless by one of the strongest tornadoes ever not only in Hungary but in Europe, estimated as F4.
- June 30 – J. B. M. Hertzog becomes the third Prime Minister of South Africa.

G. July

- July 10 – Paavo Nurmi of Finland wins the 1,500 and 5,000 m runs within two hours at the Paris Olympics.
- July 12 – United States occupation of the Dominican Republic (1916–24) comes to an end. The constitutional government headed by General Horacio Vázquez, elected in the elections held in March, is established.
- July 19 – Napalpí massacre: Around 400 indigenous people of Toba ethnicity are massacred in Argentina.

H. August

- August 16 – The Dawes Plan is signed in Paris, temporarily resolving German reparations dispute.

- August 28 – August Uprising: Georgia rises against rule by the Soviet Union in an abortive rebellion, in which several thousand die.

I. September

- September 9 – The Hanapepe massacre occurs in Kauai, Hawaii.
- September 9 – The 8-hour workday is introduced in Belgium.
- September 9-11 – The Kohat riots break out in India.
- September 28 – U.S. Army pilots John Harding and Erik Nelson complete the first aerial circumnavigation of the globe. It has taken them 175 days and 74 stops before their return to Seattle.

J. October

- October – The skull of the Taung Child is discovered.
- October 2 – The Geneva Protocol is adopted by the League of Nations Assembly as a means to strengthen the League, but later fails to be ratified.
- October 6 – 1-RO begins regular radio broadcasting services in Italy.
- October 9 – Municipal Grant Park Stadium, in Chicago, Illinois (now known as Soldier Field) is officially dedicated.
- October 10 – Voting in federal elections becomes compulsory in Australia, after a private member's bill proposed by Tasmanian Nationalist senator Herbert Payne results in the passing of the Commonwealth Electoral (Compulsory Voting) Act 1924.
- October 12–15 – Zeppelin LZ-126 makes a transatlantic delivery flight from Friedrichshafen, Germany, to Lakehurst, New Jersey.
- October 15 – The first Surrealist Manifesto is published, in which André Breton defines the movement as "pure psychic automatism".
- October 18 – Sweden's Prime Minister Ernst Trygger and his cabinet is replaced by Hjalmar Branting and his third and last government.
- October 19 – Abdul Aziz, founder of Saudi Arabia, declares himself protector of holy places in Mecca.
- October 25 – The British press publishes the Zinoviev letter, released the previous day by the Foreign Office.[35] This purport to be a directive from Grigory Zinoviev, head of the Communist International in Moscow, to the Communist Party of Great Britain.

- October 25 – Authorities of the British Raj in India arrest Subhas Chandra Bose and jail him for the next 2^{1/2} years.

K. November

- November – The last known sighting of a California grizzly bear is recorded, by Colonel John R. White at Sequoia National Park.
- November 4 – Nellie Tayloe Ross of Wyoming is elected as the first woman governor in the United States.
- November 4 – 1924 United States presidential election: Republican Calvin Coolidge defeats Democrat John W. Davis and Progressive Robert M. La Follette Sr.
- November 10 – The Trial of the 149 begins in Estonia, eventually resulting in the conviction of 129 communists, including several members of the Riigikogu.
- November 19 – Major-General Sir Lee Stack, British Governor-General of the Anglo-Egyptian Sudan and Sirdar of the Egyptian Army, is shot in Cairo by a gang of Egyptian nationalist students, dying the following day.
- November 26 – The Mongolian People's Republic is proclaimed.

L. December

- December 1 – A Soviet-backed communist Estonian coup d'état attempt fails in Estonia.
- December 19 – German serial killer Fritz Haarmann is sentenced to death for the murder and dismemberment of at least 24 young males in Hanover.
- December 20 – In Germany, Adolf Hitler is released from Landsberg Prison after serving nine months for his crucial role in the Beer Hall Putsch of 1923.
- December 24 – Imperial Airways de Havilland DH34 crash: An airliner crashes soon after takeoff from London's Croydon Airport killing all eight people aboard. This leads to the first public inquiry into a civil aviation accident ever held in the United Kingdom.
- December 24 – Albania becomes a republic.
- December 24 – Babbs Switch fire: A flash fire at a Christmas celebration in a one-room schoolhouse in Babbs, Oklahoma, United States, kills 36 people, mostly small children.
- December 30 – American astronomer Edwin Hubble announces that Andromeda, previously believed to be a nebula, is actually another galaxy, and that the Milky Way is only one of many such galaxies in the universe.

III. Panama Canal for the Fiscal Year ended June 30, 1924²

A. Net revenue of the Canal and its auxiliaries

For the fiscal year 1924 [ended June 30, 1924] the net income from tolls and other miscellaneous receipts grouped under the head of "transit revenue" was \$16,307,948.50, as compared with \$10,001,066.50 in 1923 and \$3,466,574.69 in 1922. The net profits on auxiliary business operations conducted directly by The Panama Canal, of which the most important are the mechanical shops, material storehouses and fuel oil plants, totaled \$901,624.12, as compared with \$1,140,642.50 in 1923, while those conducted by the Panama Railroad Co., exclusive of the Panama Railroad Steamship Line, but including commissaries, docks, coaling plants, and cattle industry, showed a profit of \$1,044,887.04, as compared with \$922,171.74 in 1923. The total net revenue of the year from all sources, exclusive of the Panama Railroad Steamship Line was \$18,254,459.66.

a. Traffic for Fiscal Year 1924

The fiscal year 1924 has been by far the most prosperous in the history of The Panama Canal. The number of ships in transit, exclusive of public vessels of the United States and others exempt from the payment of tolls, was 5,230, their aggregate net tonnage was 26,148,878, and the tolls collected totaled \$24,290,963.54. The latter figure exceeds by 38.7 per cent the tolls for the fiscal year 1923.

The high figures for the fiscal year 1924 were due in part to heavy oil shipments from California. These began in September 1922, and reached their peak one year later, in September 1923, when 909,879 tons of California crude oil passed through the canal. Declining gradually from that date, these cargoes in June 1924 totaled only 453,945 tons, and a further shrinkage is expected. Owing to the loss of this oil business it is possible that the record of 1924 will not be equaled in 1925, but there is a constant growth in other directions which tends to make good for the loss in oil. Excluding California oil altogether, the cargo in transit through The Panama Canal in 1923 was 15,878,826 tons, and in 1924 it was 18,493,700 tons, an increase of 16.4 per cent.

² Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

b. Nationality of vessels

There were 21 flags represented in the traffic through the canal. In terms of cargo carried the United States came first, with 61.7 per cent of the total; the British Empire second, with 22.4 per cent; and Japan third, with 3.5 per cent. Germany moved up into fourth place, with 2.7 per cent; and Norway was fifth with 2 per cent. The corresponding figures for the fiscal year 1923 were: United States, 56.5 per cent; British Empire, 25.2 per cent; Japan, 4.8 per cent; Germany, 1.6 per cent, and Norway, 3.6 per cent. The British Empire, Chile, Denmark, France, Germany, Holland, Italy, and Sweden show absolute gains in cargo tonnage, while the figures for Japan, Norway, and Peru is below those for 1923. The Argentine, Belgian, and Costa Rican flags, which appear on the 1923 list, were not seen at the canal in 1924. On the other hand, the flags of the Free City of Danzig, Ecuador, Finland, and Yugoslavia appear in 1924 but not in 1923.

c. Free transit of public vessels and vessels for repairs

The transit statistics in the preceding sections do not include naval vessels and other public vessels of the United States (or of Panama and Colombia), which pay no tolls. These numbered 418, as against 388 in 1923. One vessel was sent through The Panama Canal to the Balboa shops for repairs and subsequently returned to the Atlantic, exempt from tolls in each case, making two additional transits which are also omitted from the statistics of commercial traffic. Including this noncommercial traffic, the total number of transits was 5,650.

d. Trade routes and cargo

The United States intercoastal trade furnished an even 50 per cent of all cargo passing through the canal during the fiscal year 1924, and those four other major trades accounted for 35.5 per cent additional. These were the trades between Europe and the Pacific coast of North America (United States and Canada), 11.5 per cent; between the east coast of the United States and the west coast of South America, 10 per cent; between Europe and South America, 7.4 per cent; and between the United States and the Far East, 6.6 per cent. Various minor trades contributed to the balance of the cargo, amounting to 14.5 per cent of the whole. All of the major trades show an increase over 1923, with the single exception of the trade between the United States and the Far East, in which there was a slight decline.

e. Dual measurement system

Efforts were renewed to secure Legislation to abolish the dual system of measuring vessels for the assessment of tolls, which has been the source of endless annoyance and confusion for the past 10 years. Bills were introduced in both the Senate and the House of Representatives (S. 2400 and H. R. 7762, 68th Cong., 1st sess.) which would make the Panama Canal rules the sole basis of measurement. The House bill was reported from the Committee on Interstate and Foreign Commerce on April 25, 1924, with an explanatory statement by Mr. Hoeh (H. Rept. No. 573, 68th Cong., 1st sess.), in which the argument for the desired change is very forcibly and lucidly summarized. No further action on the bill was taken before the adjournment of Congress, but it is hoped that it may be enacted into law at the next session.

f. Lockage's and lock maintenance

There were only minor alterations in the schedule for the dispatch of vessels through the canal. At the Gatun Locks three operating shifts were retained, covering the hours from 7 a. m. to 11 p. m., the second shift overlapping with the first and third during the hours of heaviest traffic. At the Pacific Locks there was an extension of working hours; the Pedro Miguel Lock is now operated with two overlapping shifts from 7.30 a. m. to 8 p. m., and the Miraflores Locks with three overlapping shifts from 6.50 a. m. to 10.20 p. m.

The average number of lockage's per diem was 14.3 at Gatun, 15.2 at Pedro Miguel, and 15.1 at Miraflores. The total number of lockage's at all locks was 16,352, as compared with 12,551 in 1923, an increase of 30 per cent.

To handle the increased business the organization was increased by 2 senior general operators, 1 control house operator, and 5 locomotive operators at Gatun, and by 2 senior general operators, 4 general operator's, 2 control-house operators, and 5 locomotive operators at the Pacific Locks.

There were no serious delays to shipping due to the faulty operation or failure of equipment and no accidents of any moment to vessels in the locks.

On December 6, 1923, the steamship August ran into a fender chain when tying up at the Miraflores Locks. There is a record of two similar accidents. In all three cases the chain functioned properly and prevented a collision with the miter gate without injury to the vessel.

Both chambers at Pedro Miguel and Miraflores were available for use during the entire year. At Gatun, owing to the triennial overhaul of the valves, gates, bulkheads, and other under-water parts, one chamber or the other was unwatered and out of commission for 41 days. The overhaul was started on February 4 and completed on March 25, 1924. Work was carried on with three 8-hour shifts, seven days a week, using the maximum number of men that could be employed to advantage. The necessary extra force, tools, material, and spare parts having been previously arranged for, and with no serious delays, the overhaul, including the change-over from west chamber to east, was completed in 45 days, 9^{1/2} hours. There were 48 men brought down from the United States for this temporary job, in addition to those that could be recruited locally or transferred from other divisions. The majority of them arrived on February 2 and returned on the boat sailing March 19.

The Pacific Fleet, consisting of 65 vessels, including 9 battleships, was locked through the canal northbound on January 16, 17, and 18, and 36 commercial vessels were handled on the same dates, making a total of 118 vessels in three days. Returning from maneuvers in the Atlantic, the fleet again passed through the canal, southbound, in April. From April 4 to April 8, inclusive, 66 naval vessels completed the transit, together with one other Government vessel and 78 commercial vessels, or a total of 145 vessels in five days.

To pass the fleet and a normal volume of commercial traffic at the same time necessitated some overtime at the locks and in the marine division; with the present organization it was equivalent to a peak load, but well within the canal's maximum capacity both as to personnel and equipment.

g. Power for Canal Operation

The power system, based on a hydroelectric plant at Gatun and a reserve steam generating plant at Miraflores, was operated throughout the year with an average combined generator output of 4,688,472 kilowatt hours per month, as compared with 4,422,020 kilowatt hours per month in 1923. Distribution from substations averaged 3,982,224 kilowatt hours per month in 1924, and 3,796,750 kilowatt hours per month in 1923. These figures show a transmission and distribution loss of 14.5 per cent in 1924, as against a loss of 14.15 per cent in 1923.

h. Water Supply

The dry season was of average duration, extending approximately from December 19, 1923, to April 19, 1924. As regards water supply, it was the fifth driest in the last 13 years. The discharge of the Chagres River at Alhajuela was 21 per cent below the dry season average for 23 years, or 999 cubic feet per second against a mean of 1,262 cubic feet per second. Gatun Lake fell to elevation 83.6 feet above sea level on April 20, 1924, from which date the recovery of storage began.

The survey of the Chagres Valley above Alhajuela, where it is proposed at some future date to build a dam for additional water storage was completed in July 1923. The area of the basin within the 260-foot contour line is 21.2 square miles, and the storage capacity of the proposed lake at elevation 240 will be 22,310,000,000 cubic feet. To forestall any further development of this land, which will ultimately be flooded, the entire basin below the 260-foot contour, together with a small tract below the dam site, was transferred from Panama to the United States as provided in Article II of the Hay Bunau-Varilla treaty and incorporated with the Canal Zone, effective February 1, 1924. There are two small villages, El Vigia and San Juan, and various scattered huts and clearings within the area of the proposed lake. The number of inhabitants is estimated at 1,500. These people will move to other sites, but they will not be evicted for the time being, and while they remain the necessary public services, including police and schools, will be maintained by the Government of the Canal Zone. Negotiations are now pending to extinguish all private claims to land and improvements within the area.

i. Flood of October 1923

Heavy rains over the watershed of Gatun Lake October 21 and 22 caused a rate of run-off into the lake not previously attained since the opening of the canal, and brought about an interruption of traffic on October 23, when no ships were allowed to begin the transit of the canal between 6.30 a. m. and 3.30 p. m. The interruption was due in part to a strong current at Gamboa, where the waters of the Chagres River reach the canal channel, and in part to the use of the lock culverts to discharge excess water from the lake. Eleven gates of the spillway were opened, and when the flood was at its height the side wall culverts at Gatun and Pedro Miguel Locks were also opened.

In the afternoon of October 23, the 19 ships which had been delayed at the ends of the canal were taken through the first locks, and on October 24 they completed transit. Thirty-one ships made the transit on October 24.

The surface of Gatun Lake rose from an elevation of 86.10 feet above sea level on October 21 to a maximum of 87.48 in the early morning of October 23. This represents an increase in storage of 6,000,000,000 cubic feet. The discharge through spillway gates and lock culverts aggregated about 175,000 cubic feet per second. It is estimated that at the height of the flood the water was entering the lake at approximately 300,000 cubic feet per second, but as the heavy discharge had been begun well before this there was a margin of space sufficient to keep the final elevation within bounds.

The Chagres River reached an elevation of 117.4 feet at Alhajuela, exceeding its elevation at any time since 1909, when a flood record of 121 feet was set.

The situation was aggravated locally by small slides and washouts on the Panama Railroad, a break in the water main from the Chagres River supplying Panama City and the towns at the Pacific end of the Canal Zone, and a break in the transisthmian duct line which interrupted telephone, telegraph, and cable communication. It also became necessary to strengthen the Mindi Dike, built to prevent the flow of water from the spillway into the canal channel below Gatun.

On Wednesday, October 24, rain started again, and conditions in the afternoon became nearly as bad as on the previous day. Canal traffic was suspended at 5 p. m., and the side wall culverts at the Gatun and Pedro Miguel Locks were used again to spill water from the lake. In all, eight spillway gates and four culverts discharged all night. A ninth gate began discharging the next morning, continuing until 6.50 p. m. on the 25th.

While the Chagres River registered two of the greatest rises experienced since the flood of 1909, this flood was due primarily to heavy rainfall over the surface of the lake itself rather than to the run-off from the watershed. During the 48 hours ending at midnight on October 24, 27.9 inches had fallen at Gatun, 27.6 at Colon, and 26.1 at Monte Lirio. All rainfall records on the Atlantic side for the complete month of October were broken in only four days from October 22 to 25.

No damage was done to the locks, spillways, or hydroelectric plant. Temporary blocking of the strut openings at the Pedro Miguel Lock was necessary to prevent the flooding of the tunnels. In spite of the difficulties created, the passage of ships was delayed only nine hours at the height of the flood on October 23 and for a brief period late in the afternoon of October 24.

j. Slides

On the night of October 28 [1923], a slide occurred at Lirio Curve, between stations 1729 and 1740 on the west side of the canal. About 300,000 cubic yards of rock came into the prism, leaving a channel about 120 feet wide and 35 feet deep. A portion of the 95-foot berm moved out toward the canal center intact. The primary movement was checked to some extent by this rock berm, and later, as this material was removed by the dredges, the softer material again pushed out into the canal during November 21 and 22. This movement involved 250,000 cubic yards more, extending over a frontage of 800 feet. After this second slide the channel was more severely affected, being 100 feet wide with a depth of 34 feet. On December 15 another movement took place over the same area. At this time 100,000 cubic yards of material were pushed into the canal. From the date of the first slide until December 5 traffic was handled daily without interruption, starting northbound ships at 2.10 p. m., with 10-minute intervals between them, and the southbound immediately after in the same manner, with the exception of two ships held over temporarily because of the narrow margin of safety between the draft and available channel in one case and bad handling qualities in the other. These ships were the Bethore, draft 33.6 feet, and the San Nazario, drawing 30.5 feet. By the 27th of November the channel had been so improved that the Steamship Marore, drawing 35.5 feet, which had just arrived, was passed by the slide. At that time, it was as deeply laden a vessel as had ever passed through The Panama Canal. This slide became active again on January 4, 1924, at which time 125,000 cubic yards of material were carried into the canal. This movement, like the previous ones, affected the west side of the channel. From January to June the north shoulder of this slide, which had partially broken up during the period of greatest activity in October 1923, slowly settled down. The movement was so gradual during that time that the dredges had no difficulty in removing the material periodically as it pushed out into the canal. This rock shoulder was all that separated the old Lirio slide on the north and the new Lirio slide on the south. The entire section between stations 1717 and 1748 will henceforth be known as West Lirio slide. This also includes the old West Barge Repair slide. The amount of material removed from this slide area during the year amounted to 1,253,100 cubic yards.

Minor slide movements occurred at Cartagena, South Cucaracha, Cucaracha signal station, East Culebra, West Culebra, and East Lirio.

To prevent the further disintegration of the high banks through seepage various lagoons and swamps on either side of the Gaillard Cut were filled in, slopes were graded, and new drainage ditches cut. The [fiscal] year's work under this head included 5,230 linear feet of ditches, involving the removal of 11,897 cubic yards of material; 445,275 cubic yards of material placed in fills or moved in slope work; and 9,000 cubic yards of material handled in culvert construction. A pipeline dredge, a hydraulic grader, and hand labor were used in this work.

k. Aids to Navigation

The maintenance of lights previously installed in the canal and adjacent waters has been continued; two new buoys have been established, one in Balboa Harbor, the other at Trollope Rock, San Jose Bank; lighted spar beacons have been established, two each at Balboa, in the canal at Gamboa, and at the Atlantic entrance; one spar buoy has been placed at the Balboa Fleet Anchorage, two at the entrance to Coco Solo, and one at the anchorage in Cristobal Bay. Also, 27 new bank lights have been installed in the Gaillard Cut. The additional aids established in the canal afford an increased safety factor for the passage of ships. At Cape Mala and Bona Island in Panama Bay the pipeline from the gas tank houses to the base of the lights has been protected by the construction of reinforced concrete troughs, 800 feet being required at Cape Mala and 2,100 feet at Bona Island.

l. Accidents

Investigations were conducted and reports submitted by the board of local inspectors on 22 accidents to vessels in transit through the canal or using its terminal harbors. They are classified as follows: Collisions between ships, 6; grounded in the canal, 2; struck bank, 5; struck lock wall, 4; docking accidents, 3; miscellaneous, 2. The following is a brief description of the more serious of these accidents:

On August 8, 1923, at 7.40 p. m., the American steamer Dorothy Luckenbach, southbound through the canal, was obliged to go astern and drop anchor to avoid collision with the American steamer Dean Emery, also southbound, which had not previously been seen owing to the fact that she was not showing a stern light as required by law. In maneuvering to break headway the Dorothy Luckenbach struck a Panama Canal oil barge moored at Paraiso and subsequently swung her stern into the bank, damaging the port propeller. Finally, the master, having taken over the ship from the pilot, by heaving on his anchors, broke and dragged out of position a water main laid across the bottom of the canal at this point.

The estimated damages were Dorothy Luckenbach, \$1,100; oil barge, \$1,500; pipeline, \$10,000. Responsibility was shared by the Dean Emery, the Dorothy Luckenbach, and The Panama Canal. The Luckenbach Steamship Co. offered \$5,000 in settlement of The Panama Canal's claim for damages to its property, and this offer has been accepted.

On October 24, 1923, the American tanker Agwistone, northbound through the canal, grounded on the west bank of the Gamboa Reach. The Chagres River was then in high flood, discharging into the canal at Gamboa with a velocity of approximately 8 knots. This current carried the ship into the bank, but it was shown that the Agwistone does not properly answer her helm when loaded and was then overloaded, exceeding her designed fresh-water draft by 4^{1/2} inches. The ship grounded on October 24 at 12.25 p. m. and was not refloated until 6.10 p. m. on October 25, after the transfer of 13,000 barrels of oil from her cargo to another tanker. After a survey at Cristobal the Agwistone proceeded on her voyage. The board of local inspectors ruled that The Panama Canal was not responsible for the grounding or liable for any damages or expenses in connection therewith.

On October 28, 1923, the American steamer Abangarez, while approaching the dock at Cristobal, collided with the United States submarine 0-5, which sank. Three men of the submarine's crew were drowned, and two others went down in it, but were rescued 31 hours later when it was raised by the Panama Canal's floating crane Ajax and wrecking barge No. 91. The 0-5 was adjudged responsible for the collision.

On January 4, 1924, the American steamer Colin H. Livingstone, southbound through the canal, grounded near Mamei Point, and was pulled off the following morning after 120 tons had been taken out of her. The vessel then proceeded to Balboa, where a survey was held, and temporary repairs made. The cost of permanent repairs was estimated at \$6,000. On January 7, after a total delay of 74 hours, the ship proceeded to sea. The accident was due to the jamming of the steering gear, and no responsibility attached to The Panama Canal.

On March 9, 1924, the Yugoslav steamer Izgled, southbound through the canal, had a link in the steering gear carried away while rounding Gold Hill to enter Cucaracha Reach. She then struck the west bank of the canal twice and was badly damaged forward, the forepeak tank and No. 1 cargo hold being flooded, so that the bow sank to the bottom and rested in 34 feet of water. With the assistance of Panama Canal tugs the Izgled was beached in the cove at the foot of East Culebra slide.

On the following day she was raised by the salvage tug Favorite and towed to Balboa for partial discharge of cargo, dry docking, and repairs. The expense to the ship was estimated at \$40,000, in addition to which she was delayed 16 days. No responsibility attached to The Panama Canal.

Of the other accidents, none involved extensive damage or caused serious delay to the vessels concerned. The total number is small in proportion to the number of vessels using the canal or calling at its terminal ports.

m. Salvage Operations

At the beginning of the fiscal year the Panama Canal's salvage tug Favorite was assisting the American tanker John D. Archbold, owned by the Standard Oil Co. of New Jersey, which went ashore on Bona Island in Panama Bay on June 30, 1923. The John D. Archbold was pulled off the following day, and after transferring its cargo of crude oil to other tankers, proceeded to San Francisco for repairs. This case was mentioned in the annual report for 1923.

The Favorite engaged in two other major salvage operations during the year. On October 22, 1923, it was dispatched to the assistance of the United Fruit Co.'s steamer San Gil, aground on a reef north of Old Providence Island in the Caribbean. The flotation was a most difficult piece of work, but was accomplished on November 15, and after being made secure for the voyage the San Gil was towed by the Favorite to Mobile, arriving there on November 26, 1923.

Late in May 1924, the Favorite went to the assistance of the German steamer Sisak, belonging to the Kosmos Line, which had gone ashore on the coast of Ecuador. On this job the Favorite cooperated with the British wrecking tug Killerig from Jamaica. The Sisak was not floated until July, and was then towed to Balboa for repairs, arriving there on July 14, 1924.

The assistance rendered by the Favorite in refloating the steamship Izgled, beached in the canal on March 9, 1924, has been mentioned in the preceding section under the head of "Accidents."

Panama Canal tugs assisted in the salvage of the Cuyamel Fruit Co's. steamer Sagua, ashore on Little Corn Island off the northern coast of Nicaragua in November 1923, and of the Pacific Mail Steamship Co's. steamer Colombia, ashore on Cano Island in the Pacific off the coast of Costa Rica in June, 1924. At the time of these two wrecks the Favorite was assisting the San Gil and the Sisak and could not therefore be used.

n. Repairs to vessels - Mechanical Work

In general, there has been a substantial and steady flow of work through the shops, well distributed except in the case of outside marine repairs. The total volume of work increased constantly, and the force employed grew from 298 gold and 675 silver men in July 1923, to 380 gold and 789 silver men in June 1924. The increased work came largely from The Panama Canal and other branches of the Government, and a considerable part represented additions and betterments which may not be repeated. The volume of repairs to commercial shipping continued to meager. However, at the close of the fiscal year the outlook was good, and a sufficient volume and variety of work was in order to keep the force employed for a number of months. The total value of work done was \$2,951,791.25, as compared with \$2,290,226.05 in 1923.

o. Commissary System

The Panama Railroad commissary system, including five wholesale units, nine retail stores, seven manufacturing plants, two electric refrigeration plants, and an industrial laboratory, was operated as in previous years. Gross receipts from sales amounted to \$7,324,203.76, and the net profits were \$409,248.86. The total capital investment is \$3,628,964.94 made up as follows: Plant, \$2,073,104.36; equipment, \$91,295.87; supplies on hand, \$964,564.71; and floating capital, \$500,000.

Purchases were made as follows: In the United States, \$3,817,075.44; in Europe, \$389,593.87; in Central and South America, \$129,324.89; from the cattle industry on the isthmus, \$484,434.53; from The Panama Canal, \$128,467.04; other local purchases, \$210,633.90.

Cattle industry. There were 8,557 head of cattle in the pastures at the beginning of the fiscal year. Subsequently 2,062 head were purchased, and 254 calves were born. There were 6,150 head sold to the commissary for slaughter, 357 head were transferred to the dairy farm, 3 were sold to individuals and companies, and 103 head died, leaving 4,260 head on hand on June 30, 1924. The gross revenue from sales was \$416,345.05, and expenses totaled \$390,907.66, resulting in a net profit of \$25,437.39. No, new pastures were cleared, but 4,153 acres were cleared at an average cost of \$3.55 an acre. All pastures cleared showed a marked improvement in the stand of grass.

Dairy farm. The herd at the dairy farm increased from 617 to 663 head. Income from sales of milk, livestock, hides, etc., was \$63,254.99, and the expenses of operation were \$55,024.53, leaving a net profit of \$8,230.46.

Plantations. The Frijoles and Juan Mina plantations were continued under the superintendence of the cattle industry, while the other and smaller plantations and gardens were leased to contractors in the same manner as last year. The operation of the plantations resulted in a loss of \$2,508.80, the receipts being \$12,783.69 and the expenses \$15,292.39.

p. Hotels and Restaurants

The Hotel Tivoli at Ancon incurred a loss of \$7,405.61, and the Hotel Washington at Colon a loss of \$18,081.74. While these hotels are not profitable, their continued operation is considered necessary for the accommodation of visiting officials of the United States Government, tourists, travelers awaiting steamship connections, and strangers having business with The Panama Canal. When in 1922 the hotels were advertised for lease no satisfactory bids were received. The restaurants for American and west Indian employees were operated under contract during the fiscal year, and satisfactory service was rendered to all patrons at fair prices by the contractor.

q. Lands and Buildings

Panama Railroad lands in the cities of Panama and Colon and public lands in the Canal Zone are administered by a joint land office. Rentals for quarters occupied by employes are collected by pay-roll deductions.

The Panama Railroad Co.'s gross revenue from real estate operations during the year was \$157,095.27 against which expenses were charged totaling \$67,738.43, leaving a net revenue of \$89,356.84. The number of Panama Railroad leases in effect at the close of the year was 1,265, and of revocable licenses 7.

On June 30, 1924, there were 2,154 licenses in effect covering 6,837 hectares of agricultural land in the Canal Zone, to which the United States holds title. Under the terms of the circular opening the Canal Zone to agriculture in December 1921, licensees were allowed to occupy up to 5 hectares of land free of rent until June 30, 1924; no license was allowed to hold more than 50 hectares, and no annual rental, of \$5 per hectare was charged for the excess over 5 hectares. Most of this land has been planted in bananas, for which there has been a ready market at prices profitable to the growers. Banana exports from Cristobal increased from 264,505 stems during the fiscal year 1923 to 576,297 stems in 1924. This is not all Canal Zone production but includes some bananas grown in the Republic of Panama. Many new plantations in the Gatun Lake region have not yet come into bearing, and production will increase for some time to come.

The Panama Canal also collected from employees and others the sum of \$616,050.86 in rental charges for quarters, which were maintained at an expense of \$603,003.45.

r. Clubhouses

To the operation of clubs and playgrounds for American and West Indian employees and their families The Panama Canal contributed \$102,650. The additional expenses defrayed from surplus or current revenue were \$442,390.25 and the income from moving pictures, soda fountains, cigar counters, etc., was \$455,118.77. The accumulated surplus of clubhouse funds held by the collector on June 30, 1924, was \$166,670.33. The clubhouse at Ancon was destroyed by fire in January 1924, and The Panama Canal assigned to replace it a building which had been used originally as a restaurant and afterwards for no housekeeping family quarters.

s. Panama Railroad Steamship Line

The gross income of the steamship line for the fiscal year ended June 30, 1924, was \$2,443,576.29, and the total expenses were \$2,749,433.78, resulting in a net income deficit of \$305,857.49. This deficit as compared with that for the fiscal year ended June 30, 1923, of \$164,461.45 shows an increase of \$141,396.04.

The steamship line operating as an adjunct of The Panama Canal carried all freight and passengers for account of the United States Government during the year at material reductions from regular tariff rates. Had the line received tariff rates its deficit of \$305,857.49 would have been reversed and a gain of \$134,523.64 shown.

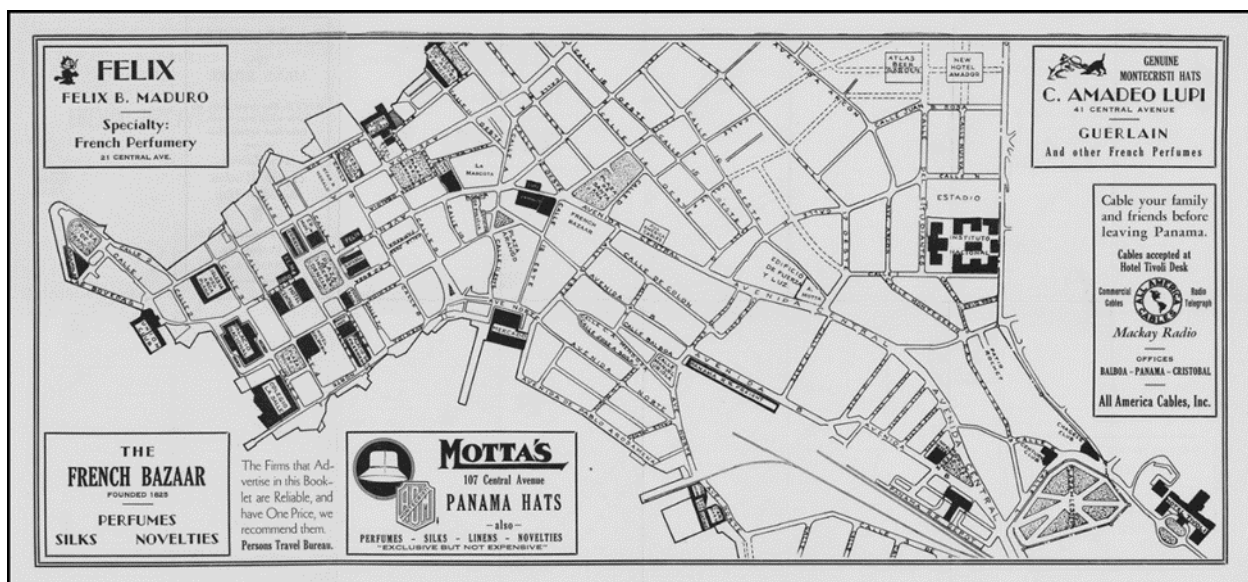
The principal causes to which the deficit of \$305,857.49 are attributable are briefly:

1. The keen competition of the direct lines operating from the South Pacific caused a marked lowering of through rates which materially reduced the freight revenue, despite the fact that the tonnage carried for the year ended June 30, 1924, amounted to 256,395 tons as against 230,916 tons for the prior year, an increase of 25,479 tons.
2. The continued depression in business conditions existing throughout the countries served by the steamship line.
3. The cost of foodstuffs, stores, and supplies during the year, which have remained at the high market established during the last three fiscal years; advances in wages of officers as well as the increased cost of stevedoring due to advances in wages granted to the men.

IV. The city of Panama 100 years ago³

In 1924, the Republic of Panama was still in its early years as an independent nation, having gained independence from Colombia in 1903 with significant assistance from the United States. This support came at a cost, as the U.S. secured rights to build, control, and defend the Panama Canal through the Hay-Bunau-Varilla Treaty. The canal, completed in 1914, was a pivotal economic and strategic asset, with the U.S. exerting considerable influence over the Canal Zone, a territory that effectively functioned as a U.S. enclave within Panama. This arrangement created ongoing tensions between Panama and the U.S., as many Panamanians were concerned about the impact on their national sovereignty and economic autonomy.

Map of the Main Business Section of Panama with Points of Historic Interest (1924).



Economically, Panama in 1924 was deeply intertwined with the canal's operations, which brought significant financial benefits but also highlighted disparities. Panama City and Colón, the two cities closest to the canal, experienced rapid urbanization and became bustling hubs of commerce, attracting a diverse population, including many Afro-Caribbean workers who had been brought to Panama during the canal's construction. While these cities were relatively prosperous, the rest of the country remained predominantly rural, with agriculture as the main economic activity. Coffee, bananas, and sugar were key exports, but many rural areas were impoverished, with limited infrastructure, education, and healthcare.

³ <https://chatgpt.com>

Socially, Panama was a mosaic of cultures and ethnicities, particularly in the canal cities, where Afro-Caribbean, European, and indigenous influences mixed with the local mestizo population. However, social inequality was pronounced, especially between the urban elite and the rural poor. The Afro-Caribbean population, in particular, faced discrimination and limited opportunities despite their crucial role in building the canal. The country was grappling with the challenges of integrating its diverse population into a cohesive national identity while addressing the disparities between different social groups.

Politically, Panama in 1924 was under the leadership of President Rodolfo Chiari, who had taken office that year. His administration was focused on modernizing the country, with efforts to improve infrastructure, education, and public services. However, the political environment was marked by instability, with frequent changes in leadership and ongoing issues of corruption. The influence of the U.S. in Panamanian politics, coupled with the dominance of powerful local elites, complicated governance and made it difficult to establish a stable and independent political system. Despite these challenges, Panama was slowly building the foundations of its national identity, navigating its relationship with the U.S., and striving to create a more equitable society.

Inauguration of Santo Tomás Hospital on Balboa Avenue (Panama City) on September 1, 1924.



The inauguration of Santo Tomás Hospital in 1924 marked a significant milestone in Panama's healthcare history. Located in Panama City, the hospital was established as a response to the growing need for modern medical facilities in the country, particularly in the aftermath of the construction of the Panama Canal, which had highlighted the importance of public health infrastructure. The hospital was named after Santo Tomás de Villanueva, a 16th-century Spanish saint known for his charitable work, symbolizing the institution's mission to provide care and compassion to the people of Panama.

Santo Tomás Hospital was designed to be one of the most advanced medical facilities in Central America at the time. It was equipped with modern medical technology and staffed by both Panamanian and international doctors and nurses. The hospital's facilities included surgical rooms, maternity wards, and departments for various medical specialties, making it a comprehensive center for medical treatment. Its establishment was a major step forward in improving the health and well-being of the Panamanian population, who had previously relied on less equipped facilities or had to travel abroad for specialized care.

The opening of Santo Tomás Hospital also reflected the broader efforts of the Panamanian government to modernize the country and improve public services. Under the leadership of President Rodolfo Chiari, who took office in 1924, there was a focus on infrastructure development, including healthcare. The hospital quickly became a key institution in the nation's healthcare system, providing essential services not only to residents of Panama City but also to people from all over the country.

Over the years, Santo Tomás Hospital has continued to play a crucial role in Panama's healthcare system, evolving with advancements in medicine and expanding its services to meet the needs of a growing population. The 1924 inauguration of the hospital set the foundation for what would become one of the most important medical institutions in Panama, committed to delivering high-quality care to all Panamanians.

Monument to Vasco Núñez de Balboa - Statue inaugurated on September 29, 1924.



V. Hernández legacy at the Panama Canal (XIX-XXI)⁴

“I believe I [Julio Hernández Claramunt b. 1920 d. 2010] should start my life story of how my family on my father's side ended up in Panama. Most of the following information was given to me by my grandfather [Pedro Hernández Díaz Leal b. 1854 d. 1940] during the earlier periods of my life. Therefor I do not have exact information as to when it happened and can only state what I remember my grandfather telling me during my early childhood.

My grandfather (Pedro) and my grandmother [Rosa García Crespo González b. 1863 d. 1943], my father [Julio Junior b. 1896 d. 1980] and his brother [Genaro b. 1900 d. 1981] were born in Spain. They were born in a small town in the province of Avila [Santa María de Berrocal] at a time and place where there was only one priest and no schools. They earned their living with jobs such as picking olives and grapes and herding sheep. Therefore, my grandfather never learned to read or write. My grandmother, my father and his brother learned much later in their lives.

The first information I remember my grandfather telling me was that he was employed by the French as a laborer around 1881-1882 when they began construction of a canal in Panama [1879-1889]. When the French failed in this effort my grandfather returned to Spain and was in the Spanish army.

My grandfather was involved in the Spanish army's efforts to quell the Cuban's efforts to separate themselves from Spain. As a child I remember my grandfather telling me about the war in Cuba and giving me details of how Cuban traitors were executed by firing squads. This situation was resolved when an American Navy ship was sunk in the Cuban harbor and America declared war on Spain. This is the part of the Spanish-American War [1895-1898] that took place in Cuba.

Eventually my grandfather again returned to Spain and when America began recruiting laborers for the construction of the Panama Canal [1904] my grandfather accepted employment [in 1907] on this endeavor. Most of these laborers [31,071] came from the West Indies, however, fifteen thousand [11,873 from 1904 to 1913] were recruited from Spain, Italy and Greece; and 8000 [8222] of these were from Spain.

⁴ “The story of my life” by Julio Hernández (NEN) Claramunt (October 29, 2009).

Since these [European] laborers were white, they were paid [\$0.20 / hour paid in silver] a little bit more than the black laborers [\$0.10 / hour paid in silver] but with no other benefits (living in bachelor quarters barracks without families, etc.). Subsequently my grandfather saved his money to afford bringing my grandmother [Rosa], my father (in his early teens) and his younger brother [Genaro] to Panama [in 1909].

My great-grandfather, passenger 7604, on his return to the construction of the canal after 25 years (circa 1882).

**List of 49 European Contract Laborers, from Vigo, arriving at
Colon, October 21, 1907, per S/S Tagus, assigned to Culebra:**

7555	Leveriano Labo	7614	Jesus Garcia
7560	Calixto Pever	7615	Juan Martin---Paid own fare
7563	David Tejeiro	7617	Serapin Martin
7565	Benjamin Santin	7618	Manuel Sanchez
7575	Tuencencio Soto	7620	Francisco Cepa
7576	Juan Serran	7623	Bernard Martin---Paid own fare
7577	Domingo Gonzales	7624	Teulzencia Rodriguez---Paid own fare
7578	Melcher Alva	7625	Antonio Gonzales
7579	Marcial Losada	7627	Antonio Pever
7580	Luis Fernandez	7622	Sanforiano Morchan---Paid own fare
7581	Justo Ochoa		
7583	Antonio Minarra		
7584	Jose Mender		
7585	Severino Sende		
7586	Manuel Valle		
7587	Francisco Novo		
7588	Balbino Freijo		
7589	Damaso Coedo		
7590	Jose Ma Valle		
7591	Daciano Carota		
7592	Jesus Garcia Gomez		
7593	Pedro Gomez		
7594	Manuel Lamar		
7595	Manuel Lopez Lamar		
7596	Gervasio Gonzales		
7597	Manuel Gomez		
7598	Sebastian Rodriguez		
7599	Francisco Garido		
7600	Marceline Cabalino		
7601	Fructuoso Diaz		
7602	Geronimo Vidal		
7603	Victor Ramos		
7604	Pedro Hernandez Leal		
7605	Manuel Ortiz		
7606	Arturo Solana		
7607	Antonio Antunez		
7608	Venancio Plaza		
7609	Pedro Plaza		
7610	Antonio Cruz		

My grandmother, (who was pregnant) my father and his brother made the month-long trip in the hold of a steamship from Spain to Panama. He never told me where they lived so I am assuming they lived in the very poor quarters for 'Silver Roll' employees. I also assume since there were no quarters for families that my grandfather built some sort of home for the family. My father told me about many times on how he and his brother did a lot of hunting in the jungles of Panama. Times were difficult, with little meat available for the family. My father and his brother killed any animal or birds they could find in the jungle such as pigs, deer, even buzzards - anything they could find - to eat. From that time my father became a lifelong hunter and fisherman.

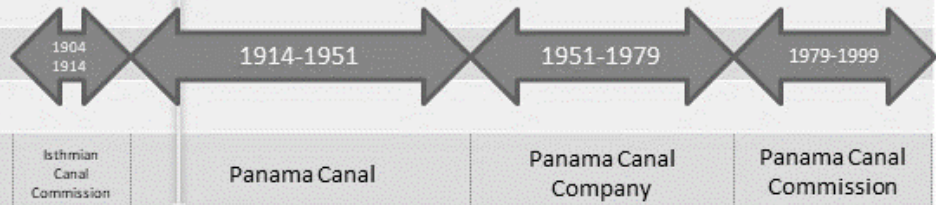
In the early days of constructing the canal most workers became ill with yellow fever and malaria. Since at that time they did not know what caused the yellow fever and malaria illness hospital bed legs sat in containers of water to keep bugs from crawling up into the beds. These in turn became breeding beds for mosquitos increasing the death rates of patients and many workers refused to go to the hospitals because of this. My grandfather became very ill. Thinking he had died, the medics placed his body in a coffin, but a nurse heard a noise coming from inside the coffin and realized he was still alive. It's a miracle he survived.”



Circa 1924 - Julio Hernández (first seated from left to right) and Rosa Claramunt de Hernández (second standing from right to left) with friends (Panama Canal Zone)

Hernández family: Four generations working on the Panama Canal.

	1900-09	1910-19	1920-29	1930-39	1940-49	1950-59	1960-69	1970-79	1980-89	1990-99
Pedro Hernández Díaz Leal (Spain 1854 - Panamá 1940)		1907-1924	Great grandfather							
Julio Hernández García (Spain 1894 - Panamá 1980)		1910 1918	1918-1958				Grandfather			
Genaro Hernández García (Spain 1896 - Panamá 1981)			1920-1945				Great uncle			
Pedro Hernández García (Panamá 1909 - 1984)				1930-1949			Great uncle			
Julio Hernández Claramunt (Panamá 1920 - EUA 2010)				1939-1941			Uncle			
Carmen Hernández de Massot (Panamá 1926 - 2009)				1943-1945		1950 1958		1972-1987	Mother	
Jorge Massot Hernández (Panamá 1958 - 1991)								1977-1991	Brother	
Jaime Massot Hernández (Panamá 1959 -)								1980 1987	1988-2022	

Panama Canal
Companies

THE PANAMA CANAL INFORMATION

ALL QUESTIONS TO BE ANSWERED IN DETAIL

1. Department and Division: Mechanical Date: August 20, 1920

2. Name, in full: Julio Hernández Age, last birthday: 24 years

3. Date of birth: July 1, 1904 Married, single, divorced, or widowed: single

4. Place of birth: Spain Country: Spain State: Barcelona

5. Are you a citizen of the United States? No Native born or naturalized: born in Spain

6. City legal residence: Spain Country: Spain

7. Mail will reach me in the U. S. address: Spain

8. Education: date of previous employment: 1910 to 1914 where employed: Spain

9. Reason for leaving: Spain where employed: Spain

10. Name of wife: Rosa Relationship: Wife Address: Spain

11. Name of child: Rosa Relationship: Wife Address: Spain

12. Name of child: Rosa Relationship: Wife Address: Spain

13. Name of child: Rosa Relationship: Wife Address: Spain

14. Name of child: Rosa Relationship: Wife Address: Spain

15. Matter of: From United States Civil Service Register

16. Have you been previously employed by The Panama Canal or Panama Railroad Company? Yes

17. What language other than the English language can you speak, interpret, or translate fluently? Spanish

18. Are you an honorably discharged soldier, sailor, or marine? No

19. Do you certify that the statements made in this information slip are complete and true to the best of your knowledge and belief? Yes

Signature: Julio Hernández

[Date:] August 20, 1920

Name, in full: Julio Hernández [Grandfather - GOLD ROLL]

Place of birth: [Santa María de Berrocal, Ávila, Spain.]

Rated as: \$0.63 [Helper \$0.66 & Crane-man \$1.06]

Genaro Hernández: [Chauffeur - Driver \$0.22 - SILVER ROLL]

Hernández, Pedro Great grandfather

NAME (to be printed): Pedro FIRST Hernández MIDDLE García

NAME KNOWN IN TOWN: 28464

CHECK NO. ISSUED: 1 DATE OF ISSUE: 1907

DATE STARTED TO WORK: 1907 Age: 66 OCCUPATION: Lab. Laborer

CITIZEN OF: Spain DATE OF BIRTH OR AGE: 1905 PLACE OF BIRTH AND COUNTRY: Spain

MARRIED OR SINGLE: married PREVIOUS ROLL: 27215

NAME AND ADDRESS OF PLACE OF PICK AND SHovel WORK IN THE Culebra Cut: 1005 - on 1300

Signature of Employee: Responsible to sign SIGNATURE OF FOREMAN: Julio

5607 NHR 10228

Silver and Gold Roll on the Panama Canal; 1904-1948 & 1979-1987

SILVER ROLL

GOLD ROLL

VI. Ernest Hallen photographs

Ernest “Red” Hallen (1875-1947) was an American photographer, noted for his 30 years of work as the official photographer of the Panama Canal. He was born in Atlanta, Georgia, in 1875. After spending six years in Puerto Rico and two years in Cuba, he was appointed as the official photographer of the Panama Canal by the Isthmian Canal Commission in 1907. Hallen was contracted to capture “... a series of photographs... about once a month... to show construction progress” to satisfy both Washington and the American public. In addition to showing the construction and progress of the Panama Canal, Hallen depicted the day-to-day life of the “Zonians” - Americans living in the Panama Canal Zone - and its development over the course of the years. Throughout his 30-year career, Hallen produced between 12,000 and 16,000 images, each with a “strangely satisfying aesthetic experience” portraying life in the Panama Canal Zone.

For his service to the Panama Canal Zone and as an employee of the Isthmian Canal Commission, Hallen was awarded the Roosevelt Medal with two bars. Hallen retired as the official photographer of the Panama Canal Zone in 1937, after 30 years of service. Hallen and his wife Maude then moved to Monterey Park, California. Hallen died in 1947 at the age of 72.⁵

Hallen's work - more than 12,000 photographs of the Canal and the Canal Zone - are the result of a brief memorandum written by F. B. Maltby, Division Engineer of the Isthmian Canal Commission. It is doubtful that he realized the magnitude of this photographic project when he wrote in 1906: "I should like very much to have a series of photographs taken at Gatun about once a month to show the progress of the work. This should be done regularly and will become valuable. I think, in connection with progress reports. I, therefore, request authority for the employment of a photographer, with whom, I understand, arrangements have already been made, not to exceed two days in each month." Subsequently, Hallen was hired as the official photographer and for the next 30 years he went about his duties of recording the progress of the construction and operation of the Canal. His work is particularly remarkable when it is realized that all these photographs were taken on the old 8x10 glass plates. He is especially to be commended for the high technical quality of his work considering the cumbersome plates, camera, and other equipment he had to carry to the muddy construction sites while coping with tropical rains and high humidity.

⁵ https://en.wikipedia.org/wiki/Ernest_Hallen

ERNEST "RED" HALLEN (1875-1947)



Hallen attempts no personal artistic statements about the Canal but worked at conducting his assignment-making a documentary record of the construction and later the operation of the waterway. However, the triumphs and setbacks are recorded so proficiently that, on viewing his photographs, one is immediately aware of the immense engineering problems involved in the digging of the Canal. N. F. Karlins writing in the photography column in the New York East Side Express said: "Looking at these photographs today, they are compelling statements about the manipulation of rock, sand, and water over time. Hallen's photographs more vividly reveal the immensity of the project, and the difficulties involved in constructing the Panama Canal when they focus on one area and are viewed sequentially.

The transformation of the environment becomes a magical process in which mountains are moved and mammoth trenches cut. "Not only does the principal trench, Culebra Cut, appear closer and closer to completion in these photographs, but workers cottages suddenly pop up as if they had blossomed overnight. In the last photo, just as man has succeeded in cutting a huge swath in the earth, nature has succeeded in reclaiming some of her own land by sending up huge palms before the worker's homes. Progress on the excavation is counter- balanced by the growth of natural vegetation, and they are captured together by Hallen's camera. The processes, not just the object involved, are made visible.

Gene Thornton, writing of the exhibit in his column in the New York Times, said: "They are unpretentious record shots but because of the subject matter some of them are quite bizarre. Without looking at the labels, we might suppose they depict the archeological excavation of ancient masonry walls or the construction of a set for a colossal science fiction film. However, every photograph is clearly labeled and dated on the negative itself, so we are never in any real doubt about what we are seeing or about the photographer's intention to show it to us as clearly and truly as possible."

The Panama Canal was the first great engineering work to be thoroughly recorded in photographs. An old timer noting this added. Too bad they did not have a "Red" Hallen around when they were building the pyramids in Egypt.⁶

⁶ <https://www.govinfo.gov/app/details/GOVPUB-W79-7d24ec89a43bcd1d1f063a8262bb0637>

VII. 100 historical photographs and stories⁷

Images and stories from a century ago are crucial in preserving the rich tapestry of human history, offering invaluable insights into the lives, events, and cultures of the past. These visual and narrative records serve as windows into another time, allowing us to understand how societies functioned, what values were cherished, and how people navigated the complexities of their world. Together, they create a vivid and multifaceted picture of the past, blending factual documentation with personal experiences that bring history to life.

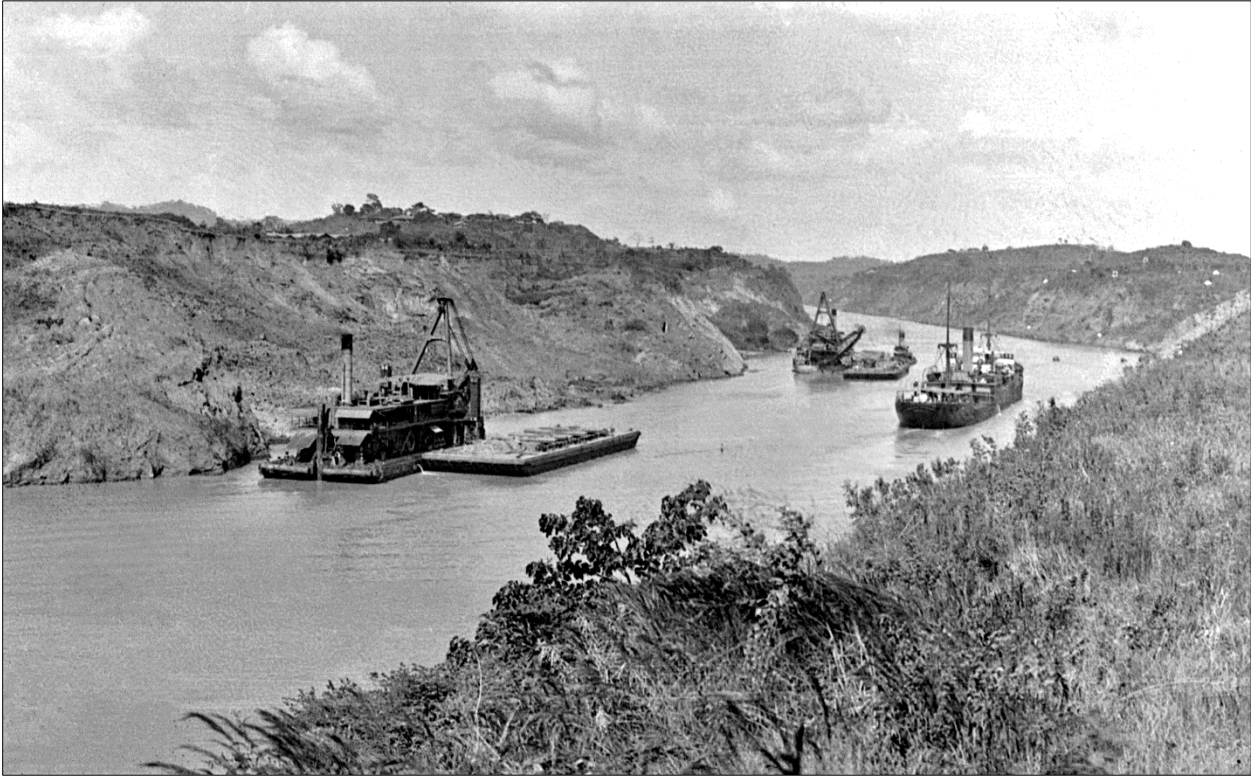
The combination of images and stories provides a deeper context than either could alone. While photographs capture moments frozen in time, showing us the faces, places, and events of the past, stories add layers of meaning to these images. They explain the circumstances, emotions, and motivations behind the scenes depicted, giving voice to those who lived through them. This synergy between visual and verbal storytelling allows us to grasp not just what happened, but why it mattered, making history more relatable and engaging.

Moreover, these images and stories are essential for understanding the evolution of cultural identities and traditions. They reveal how communities expressed themselves, celebrated their heritage, and responded to changes and challenges over time. By preserving these narratives and visuals, we maintain a connection to the past that informs our present, helping us to better appreciate the diversity and resilience of human cultures. They also highlight the continuity of certain values and practices, showing how the past continues to influence our lives today.

Lastly, the stories and images from 100 years ago inspire reflection on our progress and the enduring challenges we face. They remind us of the triumphs and tribulations of previous generations, providing lessons in resilience, innovation, and adaptability. By studying these records, we can better understand the roots of current social, political, and environmental issues, using the wisdom of the past to guide future decisions. In this way, the images and stories from a century ago are not merely historical artifacts but vital tools for shaping a more informed and thoughtful future.

⁷ <https://chatgpt.com>

1924-01-08 CULEBRA SEWER AND DRAINAGE DITCH: PANORAMA OF WEST BANK FROM EAST BARGE REPAIR SLIDE SHOWING NEW OUTLET AT CULEBRA SERVER AND DRAINAGE DITCH, CANAL STATION 1747, AND RELATIVE POSITION WITH REGARD TO WEST LIRIO SLIDE.



SLIDES

On the night of October 28 [1923], a slide occurred at Lirio Curve, between stations 1729 and 1740 on the west side of the canal. About 300,000 cubic yards of rock came into the prism, leaving a channel about 120 feet wide and 35 feet deep. A portion of the 95-foot berm moved out toward the canal center intact.

The primary movement was checked to some extent by this rock berm, and later, as this material was removed by the dredges, the softer material again pushed out into the canal during November 21 and 22. This movement involved 250,000 cubic yards more, extending over a frontage of 800 feet.

After this second slide the channel was more severely affected, being 100 feet wide with a depth of 34 feet. On December 15 another movement took place over the same area. At this time 100,000 cubic yards of material [were] pushed into the canal...⁸

⁸ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-01-08 LIRIO LAGGON AND OBISPO DIVERSION DRAINAGE: EXCAVATION FOR NEW LIRIO CULVERT. LOOKING
NORTHWEST FROM EAST END.



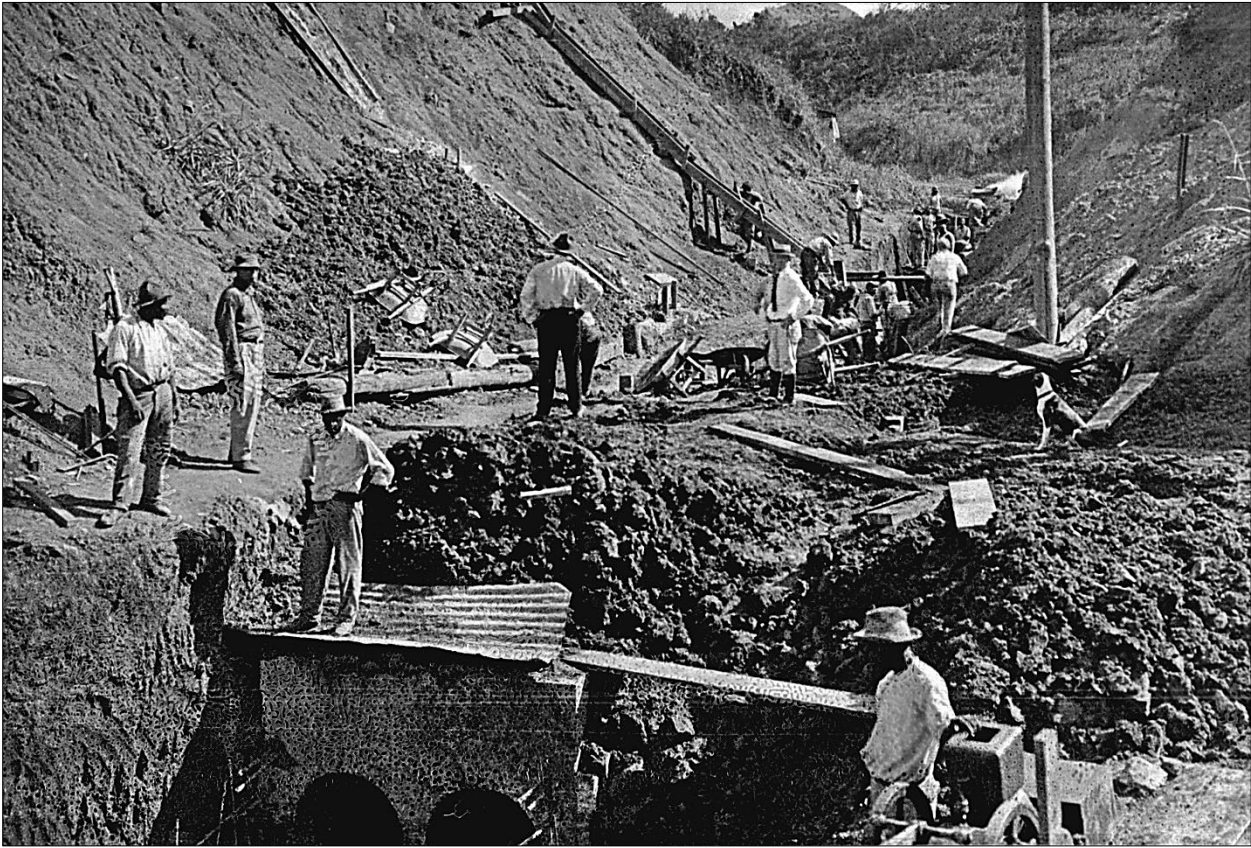
SLIDES

... From the date of the first slide until December 5 traffic was handled daily without interruption, starting northbound ships at 2.10 p.m., with 10-minute intervals between them, and the southbound immediately after in the same manner, with the exception of two ships held over temporarily because of the narrow margin of safety between the draft and available channel in one case and bad handling qualities in the other.

These ships were the Bethore, draft 33.6 feet, and the San Nazario, drawing 30.5 feet. By the 27th of November the channel had been so improved that the Steamship Marone, drawing 35.5 feet, which had just arrived, was passed by the slide. At that time, it was as deeply laden a vessel as had ever passed through The Panama Canal. This slide became active again on January 4, 1924, at which time 125,000 cubic yards of material were carried into the canal. This movement, like the previous ones, affected the west side of the channel...⁹

⁹ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-01-08 LIRIO LAGOON AND OBISPO DIVERSION DRAINAGE: EXCAVATION FOR LIRIO CULVERT. LOOKING SOUTHEAST FROM NORTH END.



SLIDES

... From January to June the north shoulder of this slide, which had partially broken up during the period of greatest activity in October 1923, slowly settled down. The movement was so gradual during that time that the dredges had no difficulty in removing the material periodically as it pushed out into the canal. This rock shoulder was all that separated the old Lirio slide on the north and the new Lirio slide on the south.

The entire section between stations 1717 and 1748 will henceforth be known as West Lirio slide. This also includes the old West Barge Repair slide. The amount of material removed from this slide area during the year amounted to 1,253,100 cubic yards.

Minor slide movements occurred at Cartagena, South Cucaracha, Cucaracha signal station, East Culebra, West Culebra, and East Lirio...¹⁰

¹⁰ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-01-08 CULEBRA SEWER AND DRAINAGE: LOOKING NORTHEAST TOWARD CANAL FROM CULVERT NORTH OF CULEBRA VILLAGE GRADER GANG WORKING ON NEW RUN-OFF FOR SEWER AND DRAINAGE DITCH IN UPPER RIGHT-HAND CORNER.



SLIDES

...To prevent the further disintegration of the high banks through seepage various lagoons and swamps on either side of the Gaillard Cut were filled in, slopes were graded, and new drainage ditches cut.

The year's work under this head included 5,230 linear feet of ditches, involving the removal of 11,897 cubic yards of material; 445,275 cubic yards of material placed in fills or moved in slope work; and 9,000 cubic yards of material handled in culvert construction. A pipeline dredge, a hydraulic grader, and hand labor were used in this work.¹¹

¹¹ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-01-12 LA PITA POINT IMPROVEMENT PROJECT. LOOKING NORTH FROM STATION 1672.



MAINTENANCE OF CHANNEL

To remove silt from the canal prism and the terminal harbors, deal with slides, and prosecute certain improvement projects, including the removal of La Pita Point in the Gaillard Cut, of the Gibraltar Shoal at the foot of Gold Hill, and of a point on the west bank south of the Miraflores Locks, the following dredging equipment was employed: Of the three 15-yard dipper dredges, one was in commission for 10^{1/2} months, a second for 7 months, and the third for 6^{1/2} months. One 20-inch pipe-line suction dredge was in service during the entire year.

After March 31, 1924, it worked in conjunction with a new relay pump barge, and these two pieces of equipment combined are expected to handle material through short lines, not exceeding 1,500 feet, to a height of 250 feet, or to a maximum distance of three miles, provided the lift does not exceed 20 feet.¹²

¹² Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-02 MT. [MOUNT] HOPE CEMETERY TARAKTOGENA KURZII (CHAULMOOGRA, TRUE).



1924-02 MT. [MOUNT] HOPE CEMETERY TARAKTOGENA KURZII (CHAULMOOGRA, TRUE).



1924 CITY OF PANAMA, CATHEDRAL PLAZA, SHOWING BANDSTAND, CENTRAL AVENUE IN THE DISTANCE.



In 1924, the City of Panama exuded a vibrant charm centered around Cathedral Plaza, where the ornate bandstand stood as a symbol of cultural gatherings and community spirit. Surrounded by colonial architecture, the plaza served as a focal point for social events, drawing residents and visitors alike to its shaded promenades and elegant surroundings. Beyond, Central Avenue stretched into the distance, bustling with life, its cobblestone streets lined with shops, cafes, and bustling markets, offering a glimpse into the daily rhythms of a city on the cusp of modernity amidst its historical roots. This intersection of tradition and progress encapsulated Panama's dynamic allure in the early 20th century, where echoes of history resonated alongside the promise of a burgeoning future.¹³

¹³ <https://chatgpt.com>

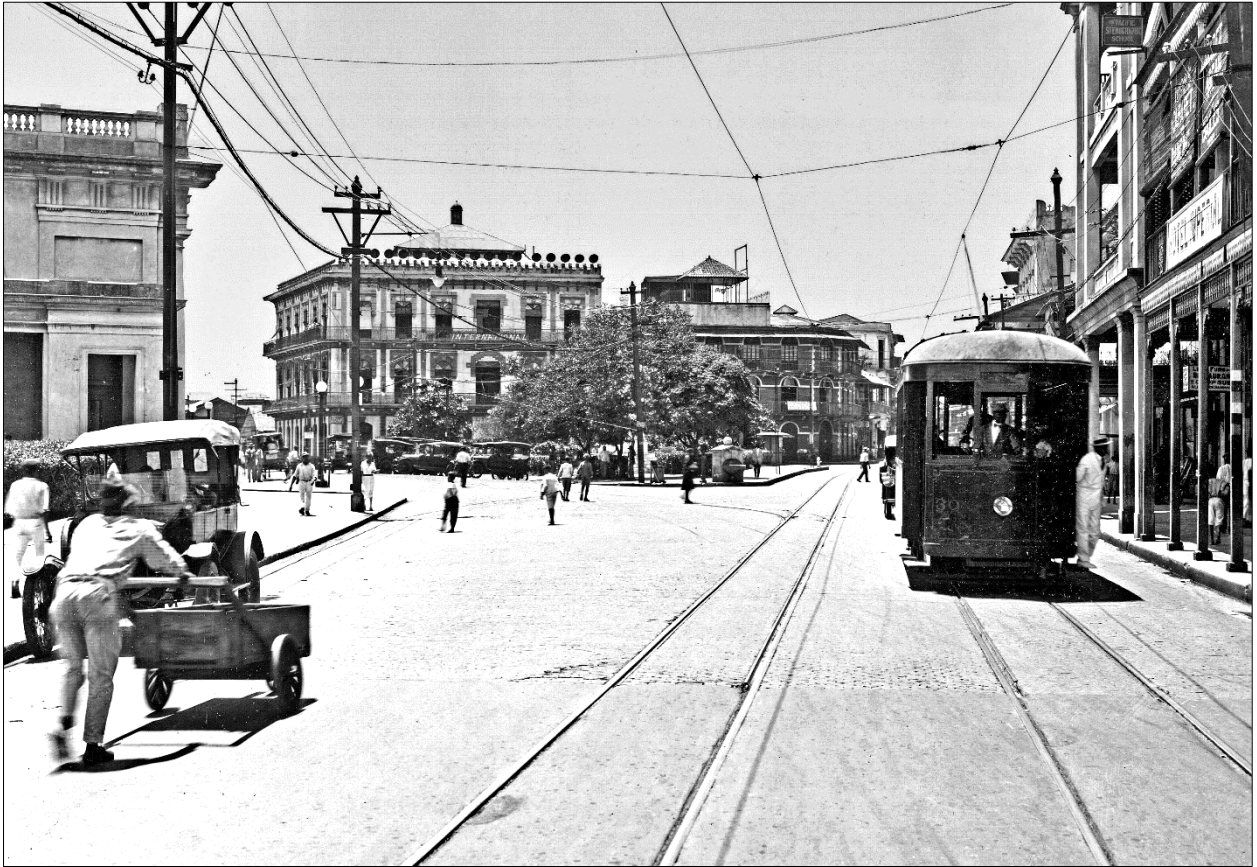
1924 CITY OF PANAMA, CATHEDRAL PLAZA, PANAMA.



Cathedral Plaza, known as Plaza de la Catedral, holds a significant place in Panama's history, tracing its origins back to the 16th century. Located in the heart of Casco Viejo, the historic district of Panama City, the plaza was initially laid out during the colonial period when the Spanish established the settlement after the destruction of the original Panama City by pirate Henry Morgan in 1671. The plaza became the centerpiece of the new city, surrounded by important buildings, including the Metropolitan Cathedral, which was completed in 1796. The cathedral's baroque and neoclassical façade, with its two distinctive towers, became an iconic symbol of Panama's rich architectural and cultural heritage.¹⁴

¹⁴ <https://chatgpt.com>

1924 CITY OF PANAMA, CENTRAL AVENUE, PLAZA 5 DE MAYO, WITH STREETCAR, PANAMA.



In 1924, Central Avenue in Panama City was a bustling thoroughfare, with Plaza 5 de Mayo serving as a prominent landmark along its route. This vibrant square was a hub of activity, reflecting the city's growth and modernization. The presence of streetcars, a symbol of the era's technological advancements, added to the dynamic atmosphere as they clattered along the tracks, connecting various parts of the city. Named in honor of the members of the Benemérito Cuerpo de Bomberos de Panamá who died during the Polvorín Tragedy (May 5, 1916), was surrounded by government buildings, shops, and cafes, making it a central meeting point for both daily commuters and those seeking leisure. The place where the square was built was a plot of land between Avenida Central, the Puente de Calidonia and La Calzada Street. This area of Panama City, with its blend of historic charm and the energy of a rapidly developing urban center, encapsulated the spirit of a city in transition, poised between tradition and progress. Plaza 5 de Mayo was declared a national historic monument by Law 33 of 2006.¹⁵

¹⁵ <https://chatgpt.com>

1924 CITY OF PANAMA. PLAZA SANTA ANA AND C STREET. PANAMA.



The architecture around Plaza Santa Ana, including the church and surrounding buildings, reflected the colonial and early republican styles, with balconies and facades that added to the area's charm. Despite the pressures of modernization, the plaza and C Street retained much of their historical character, serving as a reminder of Panama City's colonial past while also embodying the dynamic energy of a city in transition during the 1920s. C Street, or Calle C, which bordered the plaza, was a key artery in this area, lined with shops, markets, and small businesses that catered to the daily needs of the local residents. The street and the surrounding neighborhood were characterized by their lively street vendors, bustling commerce, and the sounds of everyday life, making Plaza Santa Ana a focal point for social interaction. Established during the colonial period, Plaza Santa Ana became one of the most important public spaces in the city, located in a district known for its vibrant mix of commerce, residential life, and social activity.¹⁶

¹⁶ <https://chatgpt.com>

1924-03-04 CULEBRA SEWER AND DRAINAGE: DAM "A" SLICED ACROSS OLD CULEBRA SEWER AND DRAINAGE DITCH NORTH OF OLD LIRIO PLANING MILL.



DREDGING

All slides were quiescent during the month of March 1924, with the exception of West Lirio, south.

The slide at West Lirio, south, the north shoulder of which had partially broken up during the period of greatest activity in October 1923, continued to settle down between stations 1727 and 1731. The dredge has been able to take care of the material as rapidly as the pushout takes place.

The total yardage removed from this slide since October 28, 1923, is 977,210 cubic yards.¹⁷

¹⁷ The Panama Canal Record - Volume XVII, 1923-1924.

1924-03-04 CULEBRA SEWER AND DRAINAGE DITCH: LOOKING SOUTH FROM DAM "B" SHOWING LOW AREAS DRAINED BETWEEN DAM AND NEW CULEBRA SEWER AND DRAINAGE DITCH RUN-OFF.



DREDGING

All slides were quiescent during the month of April 1924, with the exception of West Lirio (south) and West Culebra.

The slide at West Lirio (south), the north shoulder of which had partially broken up during the period of greatest activity in October 1923, continued to settle between stations 1727 and 1731. The dredge has been able to take care of the material as rapidly as the pushout occurred. The total yardage removed from this slide since October 28, 1923, is 1,043,060 cubic yards. The West Culebra slide has shown a slight general movement between stations 1776 and 1794. There was no interference with Canal traffic during the month.¹⁸

¹⁸ The Panama Canal Record - Volume XVII, 1923-1924.

1924-03-04 CULEBRA SEWER AND DRAINAGE DITCH: GENERAL VIEW SHOWING DAM "B" IN FOREGROUND ACROSS OLD FRENCH DIVERSION; DAM "A" IN UPPER RIGHT-HAND CORNER ACROSS AMERICAN DIVERSION AND EXTENSION OF OLD CULEBRA SEWER AND DRAINAGE DITCH RUNNING IN A SOUTHERLY DIRECTION IN THE LEFT-HAND CORNER; CULVERT CONNECTION FROM OLD DRAINAGE DITCH TO NEW RUN- OFF DITCH PASSES UNDER ROAD TO SOUTH OF COTTAGE IN MIDDLE BACKGROUND.



Twentieth Anniversary of The Panama Canal.

May 4, 1924, was the twentieth anniversary of the occupation of the Canal Zone by the United States, which took place on May 4, 1904.

The Canal was opened to commercial traffic on August 15, 1914. From that date until May 4, 1924, it was transited by 24,295 commercial ocean-going vessels. Since the opening of the Canal, a considerable amount of dredging has been necessary in order to remove slides in the Gaillard Cut and silting in other sections, principally the sea-level channels. To May 3, 1924, inclusive, the total amount of excavation by the American forces from the Canal prism and harbors had amounted to 321,448,750 cubic yards, which is in addition to 29,908,000 cubic yards excavated by the French and found useful to the present Canal.¹⁹

¹⁹ The Panama Canal Record - Volume XVII, 1923-1924.

1924-03-10 S.S. IZGLED, AGROUND, EAST BANK, NORTH OF GOLD HILL.



On March 9, 1924, the Yugoslav steamer Izgled, southbound through the canal, had a link in the steering gear carried away while rounding Gold Hill to enter Cucaracha Reach. She then struck the west bank of the canal twice and was badly damaged forward, the forepeak tank and No. 1 cargo hold being flooded, so that the bow sank to the bottom and rested in 34 feet of water. With the assistance of Panama Canal tugs the Izgled was beached in the cove at the foot of East Culebra slide. On the following day she was raised by the salvage tug Favorite and towed to Balboa for partial discharge of cargo, dry docking, and repairs. The expense to the ship was estimated at \$40,000, in addition to which she was delayed 16 days. No responsibility attached to The Panama Canal. Of the other accidents, none involved extensive damage or caused serious delay to the vessels concerned. The total number is small in proportion to the number of vessels using the canal or calling at its terminal ports.²⁰

²⁰ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-03-21 PANAMA CANAL. S.S. OROYA IN GAILLARD CUT, NORTHBOUND.



Reduced Fare Between Cristobal and Havana

The Panama Canal, Executive Department, Balboa Heights, C. Z., October 4, 1923. To all concerned. The Agent of the Pacific Steam Navigation Company informs this office that a reduction of 25 per cent in the fare on the steamships of their Company between Cristobal and Cuba will be allowed employees of The Panama Canal and the Panama Railroad Company stationed on the Isthmus, including the members of their families.

This reduction will be effective by the steamers Ebro and Essequibo on the voyage to New York, and also by the Oroya, Oropesa, Orcoma, Orita. Oriana and Ortega, which call at Habana on their voyages to Europe.

C. A. McIlVaine, Executive Secretary.²¹

²¹ The Panama Canal Record - Volume XVII, 1923-1924.

1924-03-21 S.S. CANADA [KOMAGATA] MARU, SOUTHBOUND, CUCARACHA [GAILLARD CUT].



Time Traveler: S.S. Komagata Maru challenges Canada’s exclusionary immigration policies:

110 years ago, this week [July 21, 2024], the S.S. Komagata Maru, holding 376 passengers from Punjab, India, was forced to depart from Vancouver [Canada].

Upon arriving in May, the passengers and a shore committee fought for their rights as British subjects to enter Canada, but the passengers were barred from entry due to the “continuous voyage” policy in the Immigration Act which was created to exclude Asian immigrants.

After months of legal battles, their case was denied by the B.C. Court of Appeal.²²

²² <https://www.nsnews.com/in-the-community/time-traveller-ss-komagata-maru-challenges-canadas-exclusionary-immigration-policies-9234815>

1924-03-22 S.S. LAUREL BRANCH, NORTHBOUND, EAST SIDE, PEDRO MIGUEL.



The following vessels were at the Cristobal shops for repairs during the week ended March 17, 1924: Steamship Cristobal, remove H.P. head from steamship Ancon and install on board; remove Vulcan refrigerating machine and blank off holes in deck; relocate and connect up brine pumps as directed; install doubling plate for refrigerating machine; remove present brine tank and install and connect up new tank; remove hatch coming around No. 6 blind hatch, orlop deck and fit beams and plate over openings and make tight; finish calking boat deck and scaling and painting around and under fresh water tanks; complete scaling, cleaning and cement washing No. 4 inner bottom tank, etc.; La Isla, dry dock, scale and paint rudder and renew copper sheathing as directed; repair main engine, circulating pump, boiler, boiler fittings, and manhole plates for fresh water tank; Challenger, brace and reinforce steering engine foundation as directed by surveyor; manufacture bolt for main engine and repair piping as directed; Laurel Branch, Camden, Oranje Nassau, Canadian Spinner, Eupatoris, Pastores, Achilles, and launch Busier Hull, minor repairs.²³

²³ The Panama Canal Record - Volume XVII, 1923-1924.

1924-03-24 U.S.S. PENNSYLVANIA APPROACHING PEDRO MIGUEL LOCK, NORTHBOUND.



USS Pennsylvania (BB-38) was the lead ship of the Pennsylvania class of super-dreadnought battleships built for the United States Navy in the 1910s. Named for the Commonwealth of Pennsylvania, she was laid down at the Newport News Shipbuilding and Drydock Company in October 1913, was launched in March 1915, and was commissioned in June 1916. Equipped with an oil-burning propulsion system, Pennsylvania was not sent to European waters during World War I, since the necessary fuel oil was not as readily available as coal. Instead, she remained in American waters and took part in training exercises; in 1918, she escorted President Woodrow Wilson to France to take part in peace negotiations.²⁴

²⁴ [https://en.wikipedia.org/wiki/USS_Pennsylvania_\(BB-38\)](https://en.wikipedia.org/wiki/USS_Pennsylvania_(BB-38))

1924-03-24 U.S.S. PENNSYLVANIA, NORTHBOUND, CUCARACHA [GAILLARD CUT].



During the 1920s and 1930s, Pennsylvania served as the flagship of first the Atlantic Fleet, and after it was merged with the Pacific Fleet in 1921, the Battle Fleet. For the majority of this period, the ship was stationed in California, based in San Pedro. Pennsylvania was occupied with a peacetime routine of training exercises, port visits, and foreign cruises, including a visit to Australia in 1925. The ship was modernized in 1929-1931. The ship was present in Pearl Harbor on the morning of 7 December 1941; she was in drydock with a pair of destroyers when the Japanese launched their surprise attack on the port. She suffered relatively minor damage in the attack, being protected from torpedoes by the drydock. While repairs were effected, the ship received a modernized anti-aircraft battery to prepare her for operations in the Pacific War. During the Battle of Okinawa, she was torpedoed by a Japanese torpedo bomber and badly damaged, forcing her to withdraw for repairs days before the end of the war.²⁵

²⁵ [https://en.wikipedia.org/wiki/USS_Pennsylvania_\(BB-38\)](https://en.wikipedia.org/wiki/USS_Pennsylvania_(BB-38))

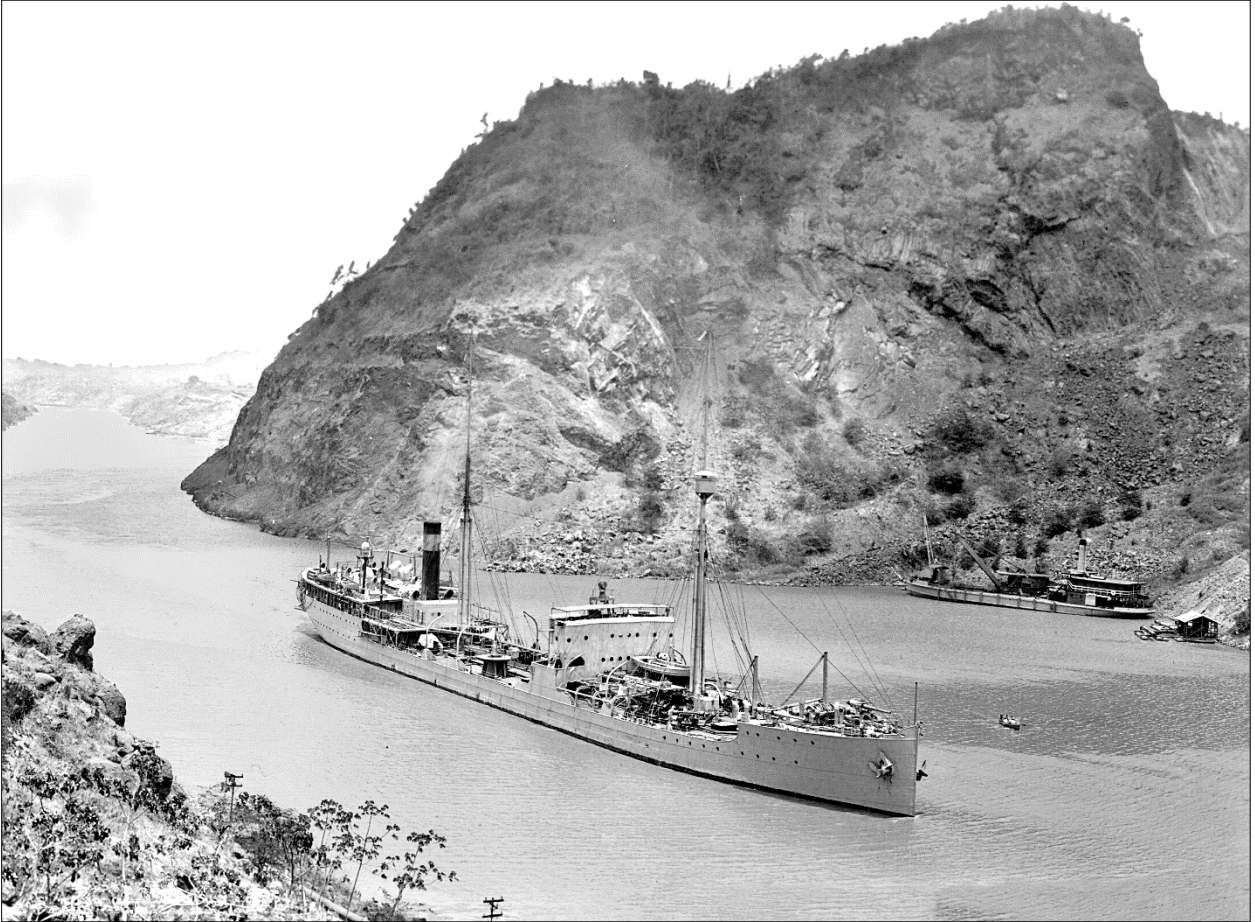
1924-04-05 U.S.S. CALIFORNIA, SOUTHBOUND, CUCARACHA [GAILLARD CUT].



USS California (BB-44) was the second of two Tennessee-class battleships built for the United States Navy between her keel laying in October 1916 and her commissioning in August 1921. The Tennessee class was part of the standard series of twelve battleships built in the 1910s and 1920s and were developments of the preceding New Mexico class. California was moored in Pearl Harbor on 7 December 1941 when the Japanese attacked the port, bringing the United States into World War II. The ship was moderately damaged by a pair of torpedoes and a bomb, but a fire disabled the ship's electrical system, preventing the pumps from being used to keep the ship afloat. California slowly filled with water over the following three days and eventually sank. Her crew suffered 165 casualties, and four men were awarded the Medal of Honor for their actions during the attack. She was raised in April 1942, repaired and heavily rebuilt, and returned to service in January 1944.²⁶

²⁶ [https://en.wikipedia.org/wiki/USS_California_\(BB-44\)](https://en.wikipedia.org/wiki/USS_California_(BB-44))

1924-04-05 U.S.S. NECHES, SOUTHBOUND, CUCARACHA [GAILLARD CUT].



USS Neches (AO-5) was laid down on 8 June 1919 by the Boston Navy Yard in Boston, Massachusetts; launched on 2 June 1920, sponsored by Miss Helen Griffin, daughter of Rear Admiral Robert Griffin; and commissioned on 25 October 1920. Originally classified as Fuel Ship No. 17 through 1920, Neches was assigned to Boston until 3 March 1922. During service with the Atlantic Fleet, she performed fleet fuel duties along the East Coast, participated in tactical exercises, carried mail, and towed targets. She also made several trips to Port Arthur, Texas, for fuel oil and gasoline. She fueled at Fall River, Massachusetts, in early March 1922 and then steamed for Norfolk, Virginia. She next got underway for her new home yard at Mare Island, California, and thence to San Diego, California, her new homeport, whence she operated as a fleet oiler. The oiler was underway from San Diego to Pearl Harbor when the Japanese attacked that base. She arrived on 10 December 1941, rapidly off-loaded and hurriedly returned to San Pedro in order to take on more cargo for Pearl Harbor.²⁷

²⁷ [https://en.wikipedia.org/wiki/USS_Neches_\(AO-5\)](https://en.wikipedia.org/wiki/USS_Neches_(AO-5))

1924-04-05 U.S.S. NEW MEXICO, SOUTHBOUND, CUCARACHA [GAILLARD CUT].



USS New Mexico (BB-40) was a battleship in service with the United States Navy from 1918 to 1946. She was the lead ship of a class of three battleships, and the first ship to be named for the state of New Mexico. Her keel was laid down on 14 October 1915 at the New York Navy Yard, from which she was launched on 23 April 1917 and commissioned on 20 May 1918. New Mexico was the U.S. Navy's most advanced warship and its first battleship with a turbo-electric transmission, which helped her reach a maximum speed of 21 knots (39 km/h; 24 mph). Shortly after completing initial training, New Mexico escorted the ship that carried President Woodrow Wilson to Brest, France to sign the Treaty of Versailles. Thereafter she was made the first flagship of the newly created United States Pacific Fleet. New Mexico's first actions during World War II were neutrality patrols in the Atlantic Ocean. She returned to the Pacific after the Japanese attack on Pearl Harbor and participated in shore bombardments. The ship was attacked by kamikazes on several occasions and awarded six battle stars for her service in the Pacific campaign.²⁸

²⁸ [https://en.wikipedia.org/wiki/USS_New_Mexico_\(BB-40\)](https://en.wikipedia.org/wiki/USS_New_Mexico_(BB-40))

1924-04-25 LA PITA POINT IMPROVEMENT PROJECT - VIEW OF SUBAQUEOUS EXPLOSION FROM 95 FEET BERM.



The "La Pita Point Improvement Project" in 1924 was a significant engineering endeavor related to the Panama Canal. It involved the construction of a 95 feet berm and the use of subaqueous explosions, which were crucial for clearing obstacles and deepening the canal channels. These explosions were carefully planned and executed to ensure safe navigation and to accommodate larger ships passing through the canal.

The project aimed to improve the navigability and efficiency of the Panama Canal, which was vital for international trade and maritime traffic. The use of subaqueous explosions at La Pita Point was part of ongoing efforts to maintain and expand the canal's capabilities, reflecting the continuous technological advancements in engineering and construction during that era.²⁹

²⁹ <https://chatgpt.com>

1924-04-25 SUCTION DREDGE AND RELAY PUMP OPERATIONS: VIEW OF RELAY PUMP BARGE IN OPERATION AT FOOT OF EAST BARGE REPAIR SLIDE SHOWING FLOAT CARRYING ESPECIALLY DESIGNED SUCTION RELIEF VALVE; ALSO, DISCHARGE LINE PASSING OVER SLIDE.



The increasingly long haul necessary for the disposal of material dredged from the Gaillard Cut of the Panama Canal, and the existence of suitable areas for the reception of suction-dredge spoil, adjacent to the banks of the canal but at elevations beyond the range of a dredge, have led to the development of a very efficient floating, electric, booster plant.

Since the canal was opened to traffic in 1914, the remaining construction excavation, as well as maintenance dredging due to slides, etcetera, has been handled almost exclusively by dipper dredges. Although it was realized that hydraulic dredging was much cheaper where the class of material would permit this type of plant to be used, it was considered impracticable because of the large number of relay pumps it would be necessary to install ashore to accommodate properly a dredge throughout the entire 8-mile length of the cut, the available dumping areas being located on both sides of the canal.³⁰

³⁰ The Military Engineer, Vol. 17, No. 96 (November-December 1925), pp. 510-513.

1924-04-25 SUCTION DREDGE AND RELAY PUMP OPERATIONS.



On account of the height of the banks, at least six permanent relay stations would be needed ashore to cover the cut section-four of these stations to consist of two 20-inch pumps each, and two of one pump each, making ten pumps in all, in addition to which transformer installations convenient to those relay stations would be necessary, as current is supplied at 11,000 volts and used at 2,200 volts. The high maintenance cost of such an installation, each unit of which would be in service only about five per cent of the time, rendered the scheme less economical than dipper dredging and, therefore, impracticable. However, the length of haul for dipper-dredge spoil has increased from an average of five miles in 1914 to fourteen in 1924. Also, in order to conserve Gatun Lake as much as possible for material which could not be handled hydraulically - that is, large boulders brought into the canal by slides, and mined material excavated in connection with various contemplated alignment improvements - the practicability of handling by suction dredges through relay pumps was again considered.³¹

³¹ The Military Engineer, Vol. 17, No. 96 (November-December 1925), pp. 510-513.

1924-05-01 LAGOON AND OBISPO DIVERSION DRAINAGE: GENERAL VIEW OF AREA BETWEEN EAST BARGE REPAIR SLIDE AND LIRIO CULVERT AFTER DRAINAGE WORK WAS COMPLETED; OLD OBISPO RIVER, PART OF OBISPO DIVERSION SCHEME, FORMERLY MEADERED OVER INTERED AREA SHOWN IN FOREGROUND.



WAGE ADJUSTMENTS. Silver employees. Although the number used as an index of the cost of living for silver employees, which is derived quarterly from current prices in the Panama Railroad commissaries where these people buy the bulk of their supplies, declined during the year from 16.909 to 37.411 (percentage of increase over 1914), no further reduction was made in the basic rate of pay for Silver Laborers, which remained at 20 cents an hour. The wage rate originally fixed for laborers in 1914, which was subsequently increased to correspond as nearly as possible with the ascertained increases in the cost of living but no farther, was made purposely low, with the intention of discouraging the surplus West Indian labor left over from construction days from remaining on the Isthmus, and at the same time free transportation was offered to all those who applied for repatriation... There is the further consideration that the wages of American employees, which fluctuate with wages in the United States, have been generally increased during the year, and it would be difficult to convince the West Indians that, while gold employees were demanding and obtaining better pay, silver employees must suffer a further reduction. The existing schedules for silver employees have accordingly been retained without change.³²

³² Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-05-01 LIRIO LAGOON AND OBISPO DIVERSION DRAINAGE: GENERAL VIEW OF AREA BETWEEN EAST BARGE REPAIR SLIDE AND LIRIO CULVERT AFTER DRAINAGE WORK WAS COMPLETED. OLD OBISPO RIVER. PART OF OBISPO DIVERSION SCHEME - FORMERLY MEANDERED OVER ENTIRE AREA SHOW FOREGROUND.



On March 31, the new floating, electrical relay station, with pumps installed in the hull of old sand and rock barge No. 3, was given an initial service test handling material from dredge No. 86, working in West Culebra slide area. With 5,600 feet of pipeline between the dredge and relay barge, and 4,139 feet of pipeline between relay barge and discharge, a total distance of 9,739 feet, a pressure of 110 pounds was noted at the discharge, at an elevation of 61 feet above water line at the dredge.

It is planned to use this barge for discharging suction dredge material to high elevations along the banks of Gaillard Cut, or through long pipelines at Balboa or Cristobal, and the indications are that it will be possible and feasible to pump to elevations of over 200 feet, which exceeds the requirements for which the outfit was designed. During the one day on which the relay barge was operated in March, there were no delays to operation chargeable to the relay barge, with the exception of the usual short delays incident to removing large stones from pumps.³³

³³ The Panama Canal Record - Volume XVII, 1923-1924.

1924-05-01 SUCTION DREDGE AND RELAY OPERATIONS: TYPE OF SPILLWAY USED IN FILLING OBISPO DIVERSION BY DEPOSITING SOIL FROM SUCTION DREDGE.



The use of more than one relay pump in connection with Panama Canal dredging was not new, but the installation of two pumps together and at the same elevation had never been proposed. For example, the remote portions of the Gatun Dam fill were made through two relay pumps separated by elevations of approximately 35 feet and by pipelines 3,000 feet in length, it apparently never having been considered practicable to combine two pumps as one 2-stage unit, thus saving duplication of buildings, transmission lines, water lines and operating force. The only real difficulty foreseen in such an installation was the unusual pressures to which pump casings and pipelines would be subjected...

With this end in view, the use of standard shore pipe was confined to the straight and level portions of the discharge line, except at the higher elevations near the end of the line where pressures are not abnormal.³⁴

³⁴ The Military Engineer, Vol. 17, No. 96 (November-December 1925), pp. 510-513.

1924-06 BOOM - GAMBOA BRIDGE: FASTENING DEVICE FOR NEW SECTIONAL BOOM WHICH INSURES QUICK RELEASE OF BOOM INSTALLED ON GAMBOA BRIDGE PIERS DURING MAY AND JUNE 1924.



Local Notice to Mariners.

The Panama Canal, Executive Office,
Balboa Heights, C. Z., March 24, 1924.

GAMBOA.

Beacon 31. Established March 5, 1924. Structure: 1 pile, painted black, gooseneck fixture; location: opposite south end of Gamboa Bridge, east bank, 150' from bank and on Canal prism, halfway between Beacons 29 and 1; characteristic: electric, white fixed; light showing 6' above 85' elevation.

Beacon 32. Established March 5, 1924. Structure: on pile painted black, with goose-neck fixture; location: halfway between Beacons 30 and 2, west bank, 40 feet from Canal prism; characteristic: electric, red fixed; light showing 6' above 85' elevation.³⁵

³⁵ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06 VIEW SHOWING CLASS OF MATERIAL PLACED ON DUMP BY PIPELINE SUCTION DREDGE WITH THE ASSISTANCE OF THE RELAY PUMP BARGE.



WAGE ADJUSTMENTS. Gold employees. Under the provisions of the Panama Canal act of August 24, 1912, it is provided that the salaries or compensation of persons in the Panama Canal service "shall in no instance exceed by more than 25 per centum the salary or compensation paid for the same or similar service to persons employed by the Government in continental United States." While the payment of the full 25 per cent increment above rates in the United States is permissive and not mandatory, it has at all times been the policy of the administration to allow the full 25 per cent additional compensation over basic rates in the United States for similar employment, in so far as funds were available and so long as a proper coordination in the rates for the various classes and crafts was maintained locally. The policy of paying the full 25 per cent increment above United States rates has been more specifically indorsed since January 1, 1922, at which time employees were required to pay rent for their quarters, charges for fuel, water, electricity, and other services furnished, which prior to that date had been furnished to the employees without cost to them... A careful survey of Panama Canal rates of pay as of May, 1924, for all classes of employees on the Isthmus, showed that as a whole Panama Canal employees were receiving 22.9 percent above rates for similar service in the United States.³⁶

³⁶ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-06-09 GATUN APPROACH SOUTH TANGENT. LOOKING SOUTH FROM STATION 345. EAST DIVERSION ON RIGHT.



Toll Charges for Transit of the Panama Canal.

- 1) Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity... \$1.20
- 2) Vessels in ballast, without passengers' cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity... \$0.70
- 3) Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton... \$0.50
- 4). Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton... \$1.20
- 5) Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton.
- 6) Vessels returning from Gatun Lake to their original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
- 7) Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls.³⁷

³⁷ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06-09 GATUN LOCKS. LOCKING SOUTHEAST FROM MIDDLE CHAMBER.



POPULATION. A census of the civil population of the Canal Zone was taken by the police force during the month of June 1924, a summary of which is given below:

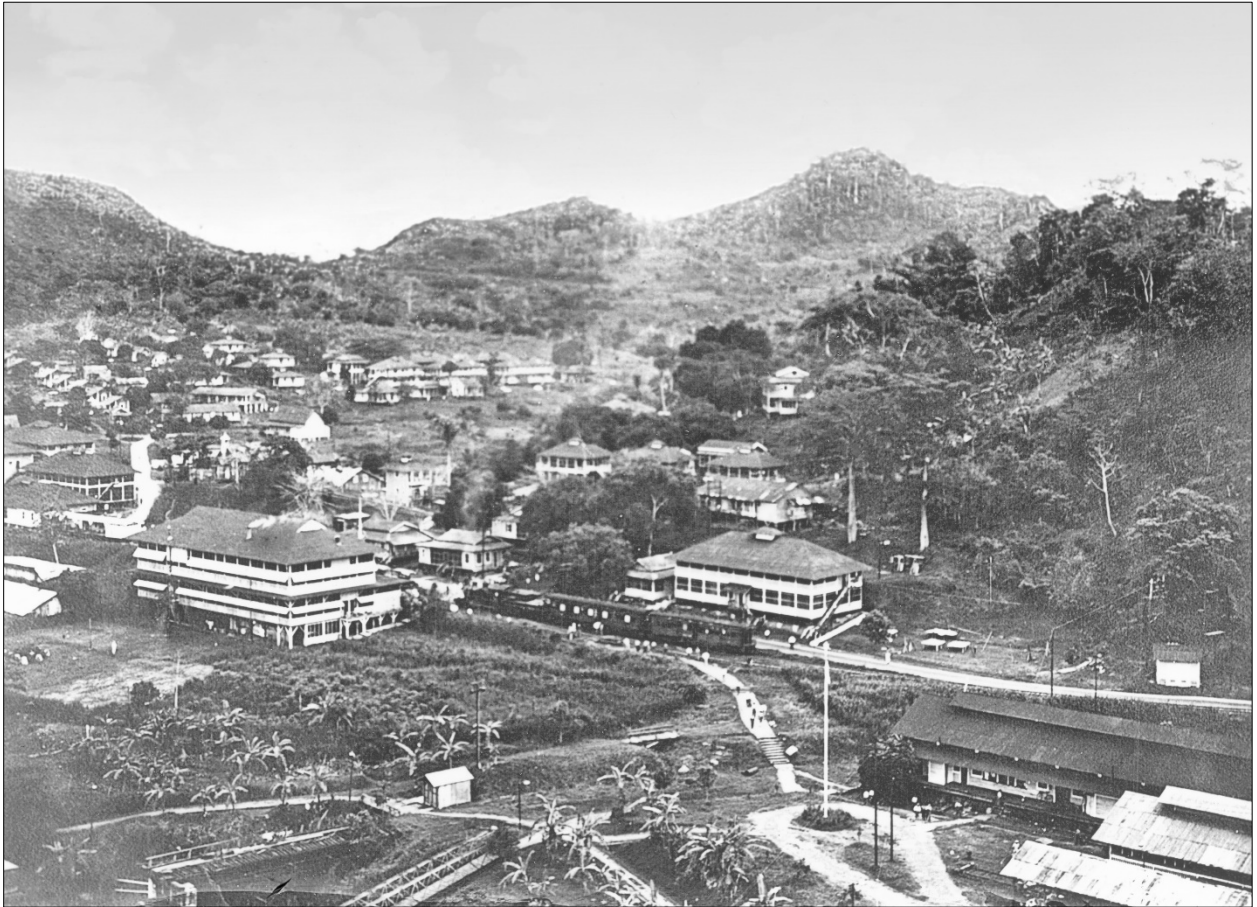
	Americans					All others					Total
	Total men	Em- ployees	Total women	Em- ployees	Chil- dren	Total men	Em- ployees	Total women	Em- ployees	Chil- dren	
Balboa district...	1, 763	1, 497	1, 972	302	2, 035	3, 270	2, 012	2, 489	41	4, 451	15, 980
Cristobal district	580	540	664	25	766	3, 254	2, 148	1, 956	74	3, 816	11, 036
Prisoners-----	25	-----	-----	-----	-----	98	-----	4	-----	-----	127
Total-----	2, 368	2, 037	2, 636	327	2, 801	6, 622	4, 160	4, 449	115	8, 267	¹ 27,143

¹ Includes 142 civilian employees of Army and Navy.

In addition to the civilian population the military population in the Canal Zone in June 1924, numbered 10,054, making a grand total of 37,197.³⁸

³⁸ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06-09 LOOKING NORTH FROM CRANE.



VITAL STATISTICS. A total of 155 deaths occurred during the month of June 1924, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 14.87 per thousand. The leading causes of death were Pneumonia (broncho and lobar), 26; tuberculosis (various organs), 25; organic diseases of the heart, 11; nephritis (acute and chronic), 11; diarrhea and enteritis (including colitis), 9. There were 5 deaths from bronchitis, 5 from apoplexy, 4 from cancer (various organs), and 2 from diphtheria. Of the total deaths, 52, or 34 per cent occurred among children under 5 years of age. There were 17 deaths among nonresidents of the Isthmus; these are not included in the above statistics. There were 282 live births reported during the month, and 16 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 28.60 per 1,000 population. Deaths among children under one year of age numbered 36, giving an infant mortality rate of 127.66 per 1,000 live births. The total of malaria cases reported during the month was 256.³⁹

³⁹ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06-09 GAILLARD [CULEBRA] CUT: PARAISO REACH. LOOKING NORTHWARD FROM PARAISO. SHOPS AND DOCKS SHOWING ON THE RIGHT [DREDGING DIVISION].



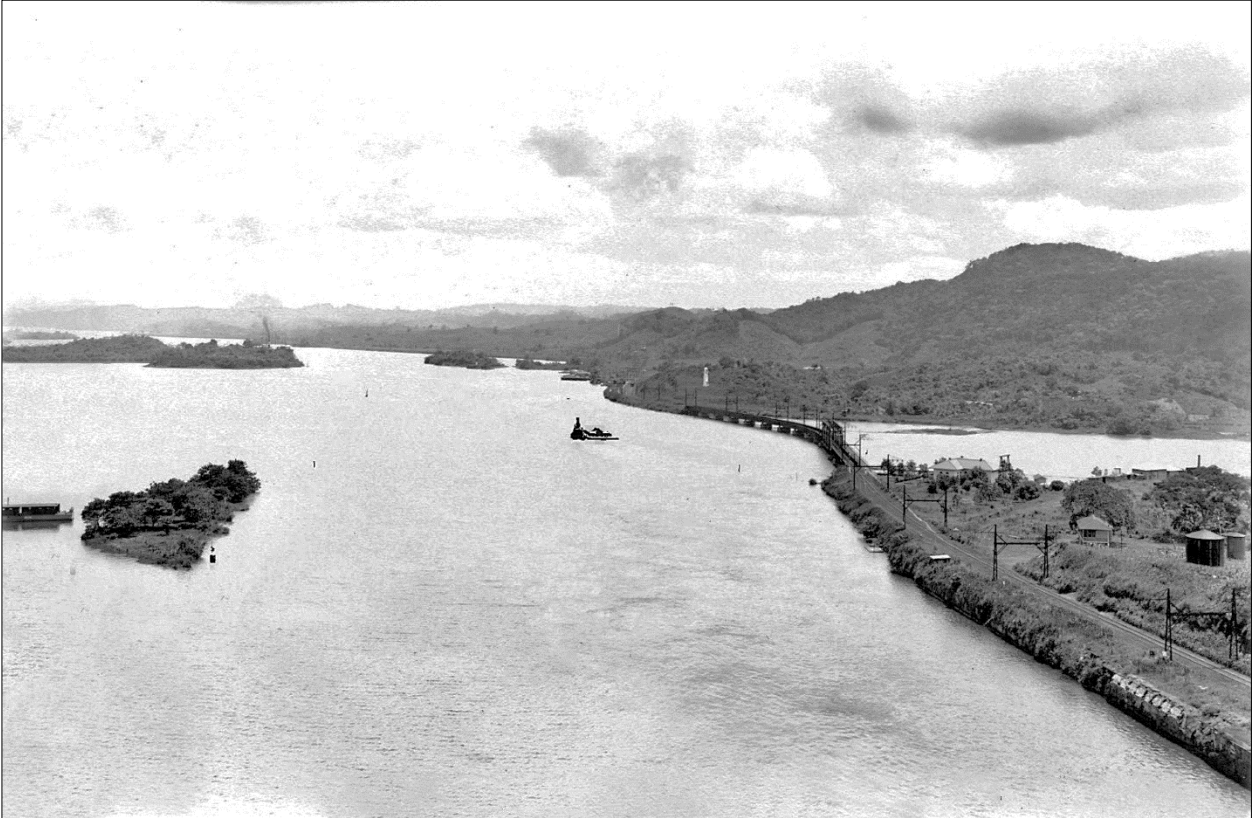
DREDGING

All slides were quiescent during the month of June 1924, with the exception of Cartagena, West Lirio, and West Culebra. Cartagena slide, which occurred at the foot of Cartagena Hill, in September, 1923, between stations 1909-50 and 1911-00, and which finally pushed out in the channel a maximum of 50 feet, was buoyed to safeguard navigation, but was not removed at once although a bad turn for shipping was caused as a consequence, for the reason that it was found necessary to maintain the road paralleling the Canal to the military camps on the west side, and which had partially given way, until it could be relocated behind Cartagena Hill. This was accomplished in May 1924, and work on the slide removal was started on the 26th of June. The road and loose material adjacent to it slid into the Canal immediately work was started.

On the 30th of June normal conditions at this point were practically restored. The movement of West Lirio slide diminished in extent and activity.⁴⁰

⁴⁰ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06-10 GAILLARD CUT. CHAGRES CROSSING. LOOKING NORTH FROM STATION 1490.



Under the heading of electrical work, this division completed, during the past year, the wiring of the Gamboa penitentiary, installed the necessary ducts and cables for a new pumping station at the Darien radio station, installed the cables and equipment for the emergency water pumping station in Miraflores Lake, installed electric equipment aboard the new floating relay pump station of the dredging division, performed considerable electrical work on ocean going vessels. The working force, as well as material and supplies, are interchangeable between the electric light and power system and electrical work, and the loss shown under this head is due more to clerical methods than to actual difference between costs and bills rendered for same. The water system involves the operation of five principal pump stations, filtration plants, maintenance of reservoirs and pipelines for the distribution of the water throughout the Canal Zone and into the cities of Colon and Panama and the various Army posts. The basic rate for departments and divisions of The Panama Canal, Panama Railroad, and United States Government and employees was 15 cents per thousand gallons. The basic rate for outsiders, including water delivered to vessels using the canal, is 50 cents per thousand gallons.⁴¹

⁴¹ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-06-10 GATUN LAKE LOOKING NORTH, FROM CRANE, BARGE REPAIR STATION GAMBOA.



PUBLIC ORDER

There were 177 men employed on the police force on June 30, 1924, an increase of 4 over the number employed at the beginning of the fiscal year. They were divided between headquarters, the Balboa central station, the Cristobal central station, and the penitentiary, with outposts at Ancon, Pedro Miguel, San Juan, Gatun, Monte Lirio, and Gamboa. the distribution being the same as last year, except that the incorporation of the Alhajuela Basin within the Canal Zone rendered necessary the detail of four men to San Juan on the upper Chagres.

In addition to routine police work, a continuous patrol of the harbors of Balboa and Cristobal was maintained, and police launches were maintained at Gamboa and Gatun for the patrol of the Chagres River and Gatun Lake.⁴²

⁴² Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-06-10 GAILLARD CUT. LIRIO P.I. LOOKING NORTH FROM STATION 1726, SHOWING SOUTH APPROACH TO EMPIRE REACH, PIPELINE FOR SUCTION DREDGE AND RELAY PUMP BARGE BEING LAID UP WEST BANK.



In order properly to synchronize the operation of the dredge and relay station, telephone connection is provided between them, as well as an electric bell signal system. To provide against a possible interruption of this service, flag signals are available for day use and electric lights instructed on a mast (erected on the roof) for night work.

Telephone communication is also arranged between the relay station and shore to take care of any electrical trouble calls on the transmission line or relay. Flags and lantern signals are used for signaling the dredge or relay station from the dumps.

The cost of handling the same class of material with dipper dredges, including transportation charges, averages approximately \$0.60 per cubic yard and, as the output of both classes of dredges on this kind of work is approximately the same, there is a direct saving to the government of over \$30,000.00 per month based upon the average monthly output. The total cost of the installation, including the value of the barge and all equipment was \$50,000.00.⁴³

⁴³ The Military Engineer, Vol. 17, No. 96 (November-December 1925), pp. 510-513.

1924-06-10 GAILLARD CUT. CULEBRA REACH: LOOKING NORTH FROM STATION 1747. NEW OUTLET FOR CULEBRA SEWER AND DRAINAGE ON THE LEFT.



Besides being used for placing material along the banks of the cut, the relay pump barge will be employed from time to time in the lake sections and at the Pacific and Atlantic Entrances in depositing material in areas beyond the range of the dredge alone. Working in conjunction with a 20-inch dredge of normal power - from 400 to 600 horsepower - material may be placed economically at elevations of about 250 feet through short pipelines (1,500 feet or less), or through a pipeline length of about three miles with little or no elevation (20 feet or less).

A submarine cable is used for carrying power under the canal when dredging on the west side, this cable being long enough to permit laying parallel to the banks for sufficient distance before crossover to allow continuous dredging without disturbing the cable when the dredge is operating abreast of the relay pump barge. Incidentally, much valuable work has been accomplished in the way of curing and preventing seepage difficulties along the banks of Gaillard Cut by filling cracks with hydraulic spoil and improving slopes in existing drainage channels.⁴⁴

⁴⁴ The Military Engineer, Vol. 17, No. 96 (November-December 1925), pp. 510-513.

1924-06-11 CULEBRA SEWERAGE AND DRAINAGE DITCH: VIEW TAKEN FROM SOUTH SIDE OF DIVISION OFFICE HILL, SHOWING LIRIO CAMP IN LEFT HAND CORNER AND LIRIO VALLEY ON THE RIGHT.



Canal Zone. The average population (civil and military) for the fiscal year 1924 was 31,963, and this figure has been used as a base for vital statistics. From this population 270 deaths occurred during the year, 239 of which were from disease, giving a rate of 7.48 for disease alone, as compared with 7.42 for 1923, and 7.04 for 1922. The birth rate for the year was 21.12 per thousand population. The infant mortality rate, based on the number of live births reported for the year, was 30.57 for white children and 105.02 for black children, with a general average of 79.46. Of the total births reported 4 per cent were stillbirths. Of the total deaths reported, 37 per cent occurred among children under 5 years of age.

Panama. The population of the city of Panama for the year was 59,635. From this population 1,212 deaths occurred during the year, of which 1,178 were from disease, giving a rate of 19.75 for disease alone, as compared with 18.24 for the preceding year.⁴⁵

⁴⁵ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-06-19 GATUN LAKE MAMEI CURVE: LOOKING WEST FROM BEACON NO. 81. [DARIEN RADIO STATION IN CENTER].



Darien Radio Station provided crucial support for naval operations in both the Atlantic and Pacific Oceans, acting as a backup to other primary communication facilities to ensure redundancy and reliability. The station was also instrumental in training military personnel in communication and signal operations, coordinating joint exercises, and strengthening the strategic presence of the US military in the Western Hemisphere. Its primary function was to facilitate long-range radio communication, ensuring reliable and secure channels between the US mainland, naval vessels, and other military installations in the Caribbean and Latin America. Restoring the old Darien Radio Station is crucial for promoting historical and environmental tourism near Gamboa town along the Panama Canal.⁴⁶

⁴⁶ DARIEN RADIO STATION - THEN (1914-1935) AND NOW (2022): Restoration, preservation, and tourism promotion of some Panama Canal historical sites in abandonment, Amazon Books, 1922.

1924-06-18 LOCKING NORTH FROM NORTH CHAMBER SHOWING SOUTH TANGENT OF GATUN APPROACH CHANNEL.



Medical Service to Ships.

The Panama Canal, Marine Division,
BALBOA Heights, C. Z., June 3, 1924.

Memorandum for Steamship Agents:

Some confusion is being caused in Canal traffic by Masters and Agents ordering medical service direct instead of through the offices of the Port Captains. The effect of this is that doctors are requested to come aboard at points where the transit plans of the Port Captains will not permit this to be done.

Please inform masters and principals that doctors should be ordered through Port Captains, who will see that they come aboard at points which will not interfere with transit plans; if a doctor is urgently needed the request should so state.

A. W. Hinds,
Marine Superintendent.⁴⁷

⁴⁷ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06-19 GATUN LAKE - MAMEI CURVE. LOOKING WEST FROM SPAR BUOY NO. 74. DARIEN RADIO STATION ON THE RIGHT.

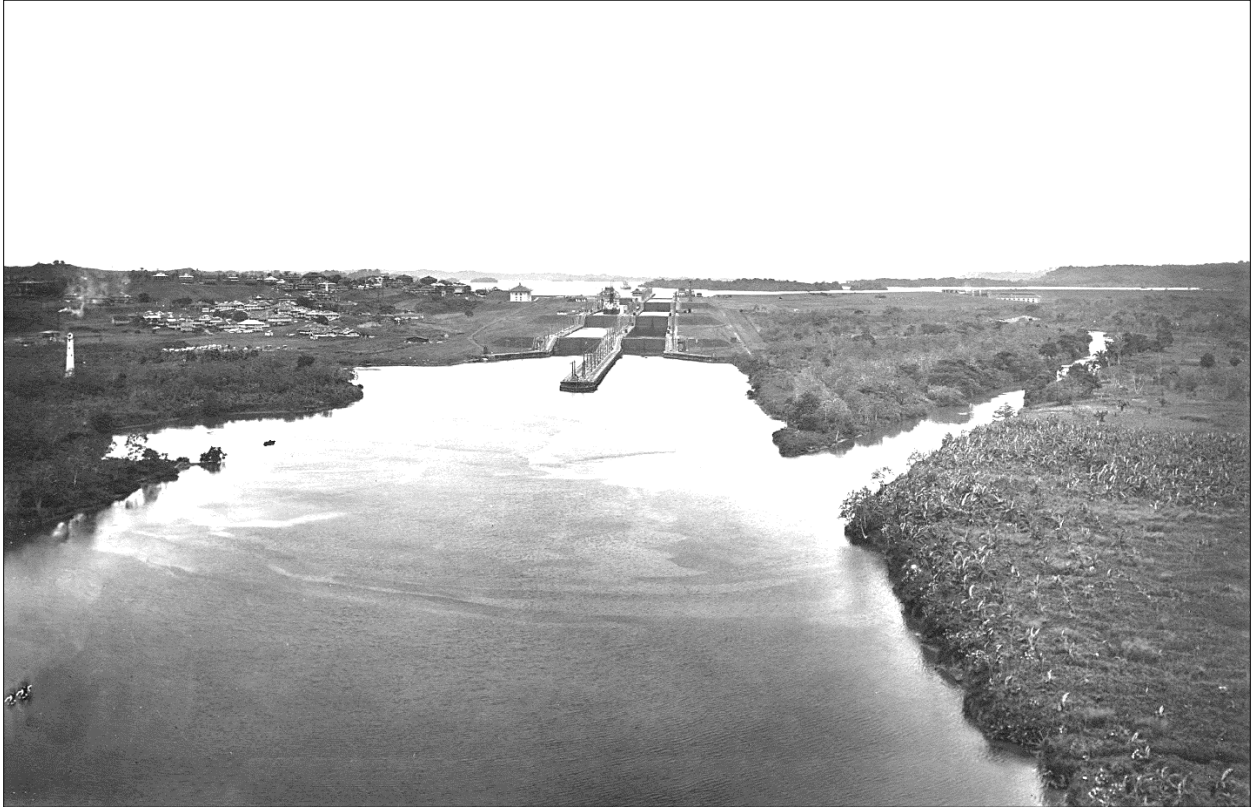


The Darien Radio Station is located just 25 miles south of Colon on the Panama Railroad. The railroad forms the east boundary of the reservation which contains 872 acres. The southwest boundary is the Canal itself from which is a channel 20 feet deep and 75 feet wide into the center of the station plot. Those who may have visited the Canal before the water was allowed to rise may remember this site as being adjacent (to the southeastward) to the old town of San Pablo.

On the "relocation" the nearest stop was Caimito Cabin at the north end of dumps. Thus, the site was known variously as the San Pablo or Caimito Radio, or simply as Radio in the early stages, until the department assigned the name Darien, when, by request, the governor named the railroad stop here Darien. Until the name was well known, our mail frequently went astray to the southernmost province of the Panama Republic which is known as the Darien section. This plot was decided upon with the following advantages in view.⁴⁸

⁴⁸ DARIEN RADIO STATION - THEN (1914-1935) AND NOW (2022): Restoration, preservation, and tourism promotion of some Panama Canal historical sites in abandonment, Amazon Books, 1922.

1924-06-19 GATUN APPROACH - SOUTH TANGENT: LOOKING SOUTH FROM STATION 345. EAST DIVERSION ON RIGHT.



Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.70 per barrel of 42 gallons. Diesel oil is sold by the Canal at \$2.35 per barrel. Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, \$2.00 per barrel at Cristobal, and \$2.00 at Balboa; Diesel oil, Balboa only, \$2.00 and \$2.35 per barrel. Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$9 per ton of 2,240 pounds at Cristobal and \$12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is \$10 per ton at Cristobal. \$13 at Balboa. For delivering lump coal for galley use. in sacks, \$12 additional per ton; but if vessel furnishes sacks, \$5 per ton additional. Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.⁴⁹

⁴⁹ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06-19 GATUN LOCKS: LOOKING EAST SHOWING EAST FOREBAY, LIGHTHOUSE DIVISION HEADQUARTERS AND PORTION OF GATUN VILLAGE.



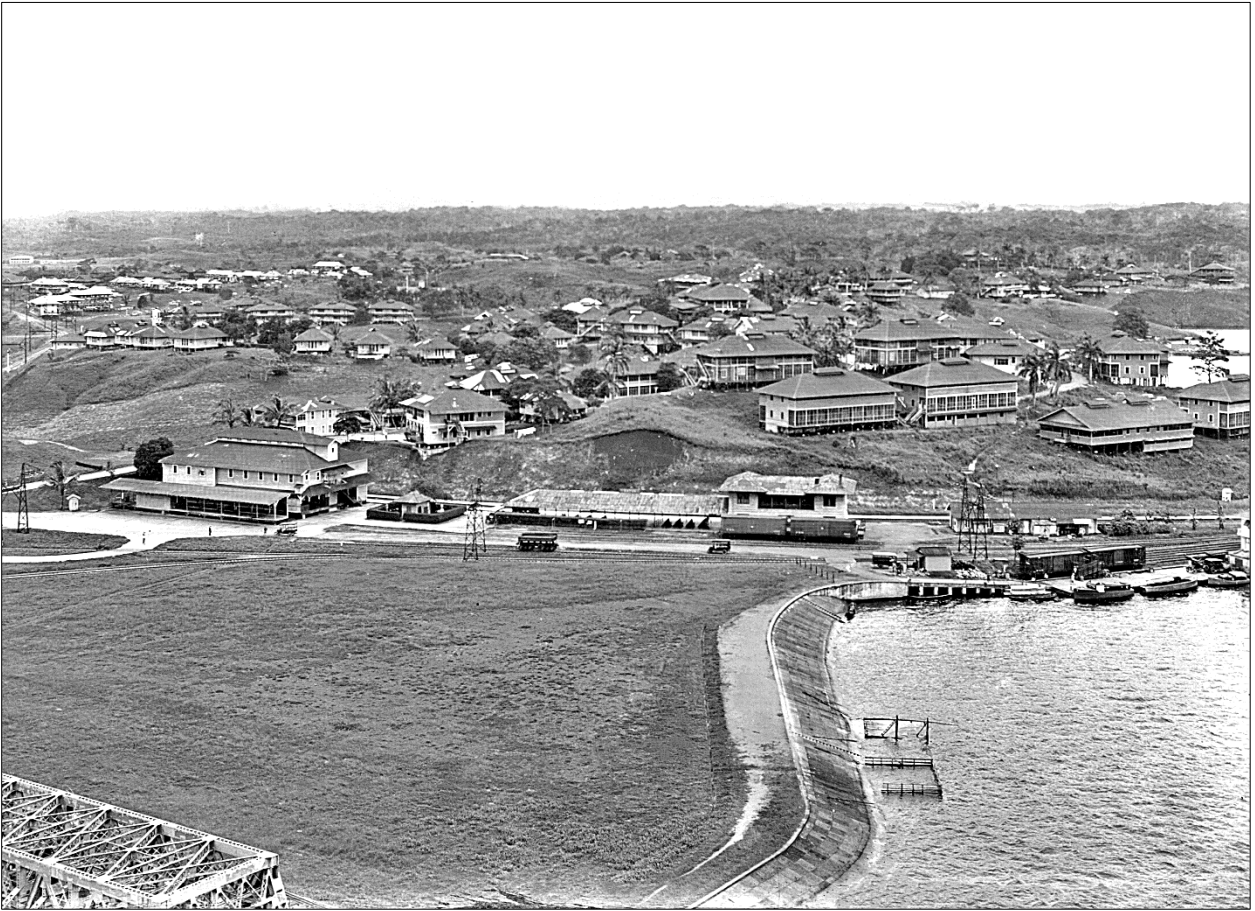
MUNICIPAL ENGINEERING. The output of the 3 filtration plants, the amount of water consumed by the cities of Colon and Panama, and the sales of water to vessels, are shown in comparative form in the following tabulation:

	May, 1924.	May, 1923.	May, 1922.
	<i>Gallons.</i>	<i>Gallons.</i>	<i>Gallons.</i>
Pumping stations.....	610,151,500	684,899,000	654,853,000
Filtration plants.....	366,550,000	408,187,000	379,450,000
Water consumed by Panama.....	91,315,000	93,479,000	85,936,000
Water consumed by Colon.....	53,055,750	58,896,500	62,468,500
Sales of water to vessels.....	10,292,685	8,551,122	8,493,096

The extension and enlargement of the water system in the Ancon - Balboa district for fire protection was advanced to 80 per cent of completion.⁵⁰

⁵⁰ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06-19 GATUN LOCKS: LOOKING EAST SHOWING GATUN AND NEW GATUN VILLAGES AND A PORTION OF FORT DAVIS IN THE DISTANCE.



Radio Advice from Ships as to Hour of Arrival at Canal.

The Panama Canal, Marine Division,
Balboa Heights, C. Z., May 26, 1924.

Memorandum for Steamship Agents:

More expeditious transits could be secured if better information were given to Port Captains as to the hour of arrival of vessels. At present some ships do not furnish any radio information to the Canal officials predicting their hour of arrival, and some of the predictions are in error as much as 12 hours. When the predicted hour of arrival is reported only to agents, this should be relayed promptly by them to the Port Captains.

Some ships send predicted hour of arrival too long before they reach port, thus involving error due to currents. If these vessels waited until they were only about 24 hours out and took frequent navigational sights when nearing the Canal, there would be less error in predicted hour of arrival. Attention to these matters, with careful application of current effects, should result in a more efficient Canal service in connection with Canal transits.

A. W. Hinds,
Marine Superintendent.⁵¹

⁵¹ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06-19 ATLANTIC ENTRANCE - LIMON BAY: LOOKING SOUTHEAST FROM STATION 60+000 SHOWING WATERFRONT COLON AND CRISTOBAL MOLE. COCO SOLO NAVAL AIR STATION AND FRANCE FIELD ON THE EAST SHORE OF MANZANILLO BAY IN THE DISTANCE.



The Hamburg-American Line has announced the inauguration of a passenger service with monthly sailings between Hamburg and the Caribbean coast of South and Central America, with the sailing from Hamburg of their new steamship Teutonia, a vessel of 6,600 tons gross, on May 17, 1924. Ports of call include La Guayra, Puerto Cabello, Curacao, Puerto Colombia, Cartagena, Cristobal, Port Limon, and Puerto Barrios, with return in reverse order.

The first vessel is expected to arrive at Cristobal on or about June 14, and, after calling at Port Limon and Puerto Barrios, to return to Cristobal and sail for Hamburg via the points above-mentioned and Amsterdam, on June 30.⁵²

A suction dredge working in Manzanillo Bay filled in for the Army an area of 86.5 acres of swamp land adjoining France Field with 507,400 cubic yards of sand and coral. The same dredge made a 24-acre fill for the Navy at Coco Solo, handling 280,000 cubic yards of material.⁵³

⁵² The Panama Canal Record - Volume XVII, 1923-1924..

⁵³ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-06-19 ATLANTIC ENTRANCE - LIMON BAY: LOOKING SOUTHEAST SHOWING CRISTOBAL MOLE, CRISTOBAL HARBOR AND DOCKS.



Panama Railroad Steamship Line.

Following are proposed sailings of passenger vessels of the Panama Railroad Steamship Line:

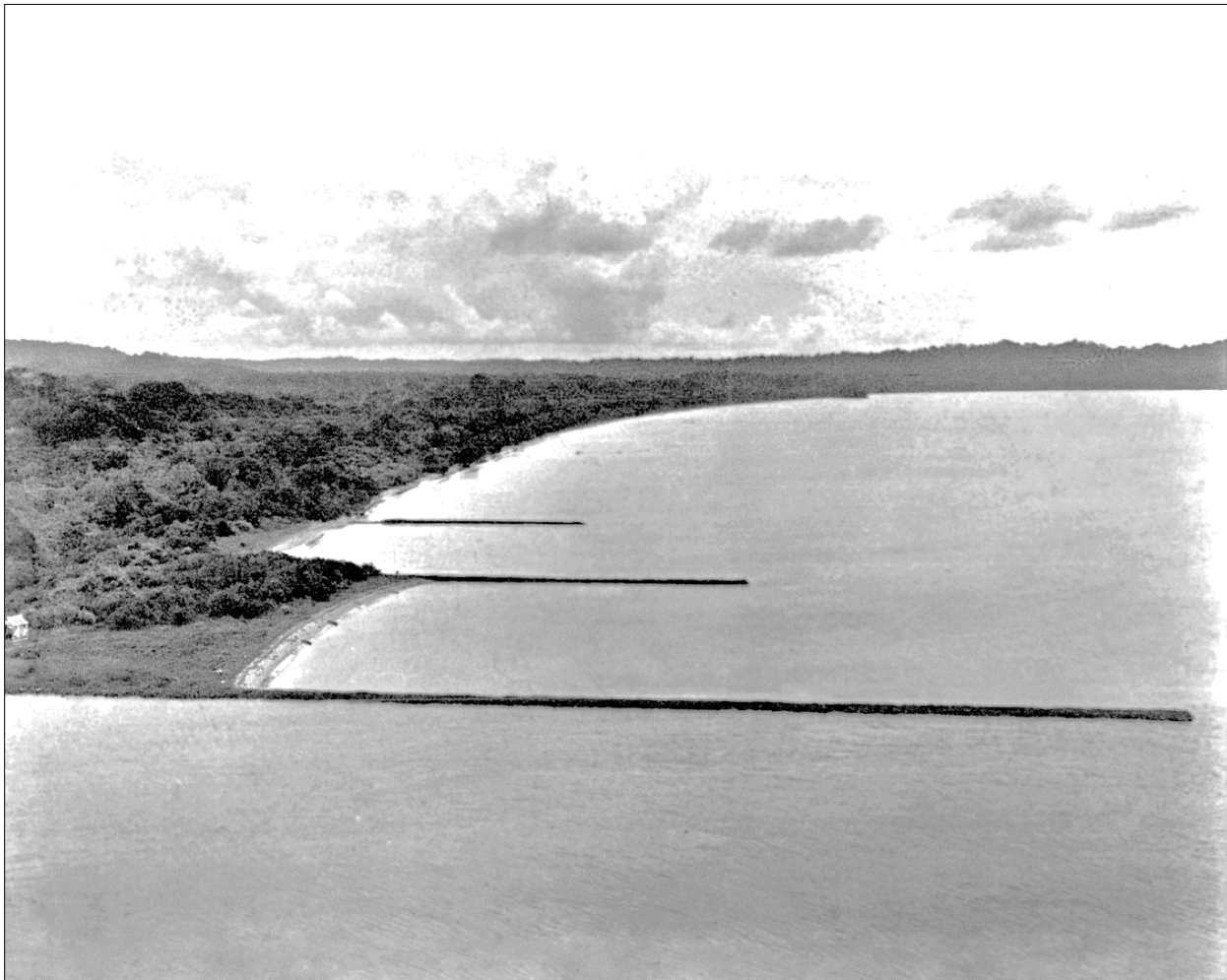
Steamer.	Leave New York.	Leave Port au Prince	Arrive Cristobal.	Leave Cristobal.	Leave Port au Prince	Arrive New York.
General W. C. Gorgas.....	May 15	May 21	May 24	May 29	June 1	June 6.
Panama.....	May 24.....	May 29	June 1	June 9	June 12.....	June 17.
Cristobal *.....	June 5	June 10.....	June 13	June 19.....	June 22.....	June 27.
General W. C. Gorgas.....	June 14.....	June 20.....	June 23	June 29.....	July 2	July 7.
Panama.....	June 25	June 30.....	July 3	July 9	July 12.....	July 17.
Cristobal *.....	July 5	July 10.....	July 13	July 20.....	July 23.....	July 28.
General W. C. Gorgas.....	July 15	July 21.....	July 24	July 29	August 1	August 6.
Panama.....	July 25.....	July 30.....	August 2	August 8	August 11.....	August 16.

WEST COAST SERVICE.

In addition, a regular freight service is maintained, without calls in route, direct to Cristobal, Buenaventura, and Ecuadorian ports. Particulars upon application.⁵⁴

⁵⁴ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06-19 GATUN APPROACH - LIMON BAY: LOOKING WEST FROM STATION 248+00. SHOWING DYKES AND SOUTH SHORE OF LIMON.



Abrogation of the So-called Taft Agreement Between the United States and Panama.

By the President of the United States of America, A Proclamation -

Whereas a Joint Resolution entitled a "Joint Resolution Authorizing the President to abrogate the international agreement embodied in certain Executive Orders relating to the Panama Canal," approved February 12, 1923... Now, therefore, I, Calvin Coolidge, President of the United States of America, acting under and by virtue of the authority conferred in me by the said Joint Resolution of Congress, do hereby declare and proclaim, in accordance with notice of my intention heretofore given to the Government of Panama, the abrogation as of June 1, 1924, of the international agreement embodied in the Executive Orders issued as aforesaid, on December 3, December 6, and December 28, 1904, January 7, 1905, and January 5, 1911.⁵⁵

⁵⁵ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06-19 GATUN APPROACH - MINDI P.I. [POINT OF INTERSECTION]: LOOKING FROM STATION 288+00 SHOWING NORTH TANGENT OF APPROACH AND OLD FRENCH CANAL ON RIGHT.



Information from American Consuls.

The Consular officers of the United States at seaports all over the world are ex officio representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference. It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.⁵⁶

⁵⁶ The Panama Canal Record - Volume XVII, 1923-1924.

1924-06-30 LA PITA POINT IMPROVEMENT PROJECT - LOOKING SOUTH FROM BRIDGE OF DIPPER DREDGE SHOWING STAR WELL DRILLS AT WORK ON LAST LIFT AT STATION 1665.



A second 20-inch pipe-line suction dredge was converted for use as a hydraulic grader and so used for $6^{2/3}$ months. At the end of the [Fiscal] year, it was being reconverted for service as a dredge.

The sea-going suction dredge Culebra was continued in service for $3^{1/2}$ months from the beginning of the fiscal year and then transferred to the United States Engineer office at San Francisco. One ladder dredge was held in reserve.

A hydraulic grader was employed for 9 months on the La Pita Point improvement project. A drill boat was in service throughout the year. An air compressor installed on a barge was used for 12 months to supply compressed air for drilling at La Pita Point.

A crane boat was in commission during the entire year and used for towing, rigging, and wrecking jobs and the excavation of sand. Each of the two 250-ton floating cranes was commissioned in alternate months, except when calls for extra service required that crews, be placed on both of them.⁵⁷

⁵⁷ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

1924-06-30 LA PITA POINT IMPROVEMENT PROJECT: VIEW FROM DIVISION OFFICE HILL WEST BANK, LOOKING NORTH.



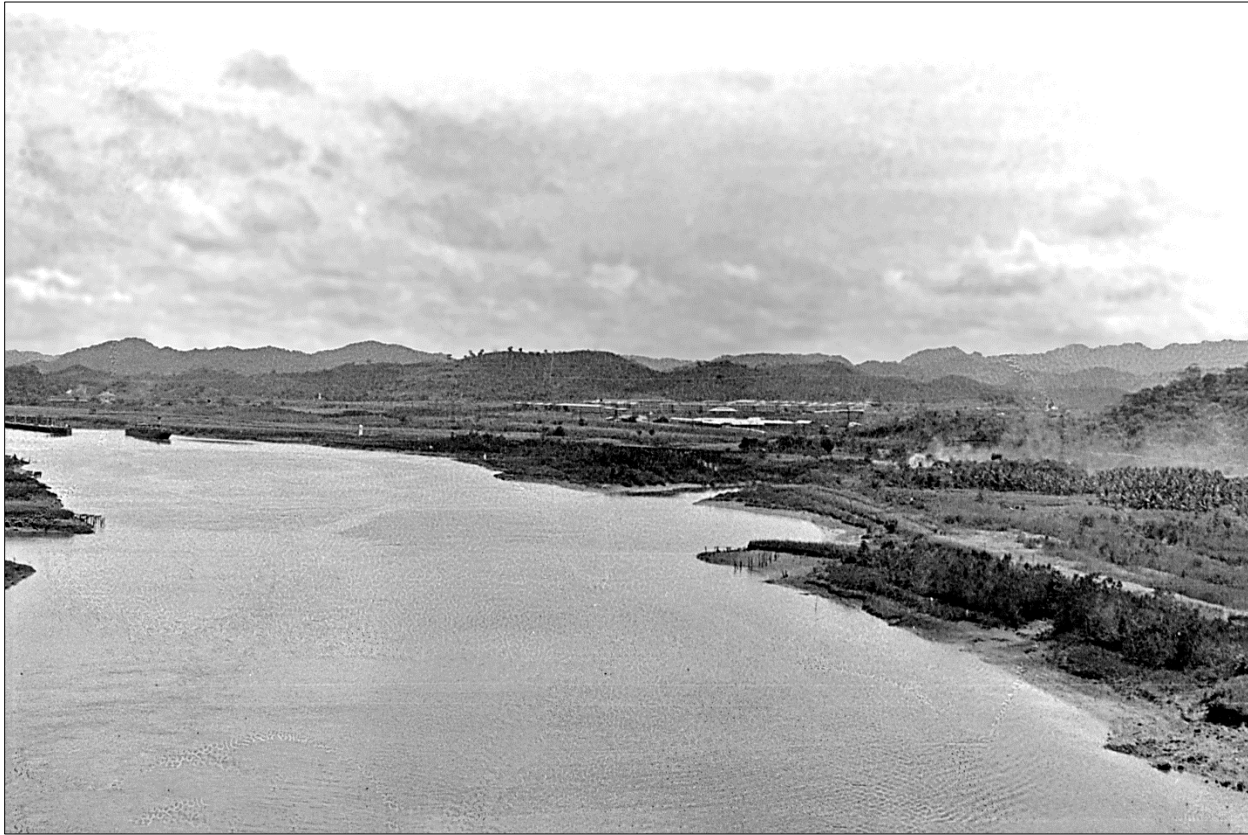
New equipment ordered but not delivered during the [Fiscal] year included one Diesel driven three-fourths yard drag-line excavator, three 1,000-yard dump scows, and one drill barge. Of the improvement projects upon which dredging equipment was engaged, those at Miraflores and Gibraltar Shoal were completed, and at La Pita Point, where 1,041,200 cubic yards of material had been removed at the end of the year, there remained 165,000 cubic yards still to be excavated. Twelve new improvement projects were studied, and the dredging division was authorized to undertake them in the order of their importance as equipment and personnel became available and without increase of the present organization.⁵⁸

The removal of La Pita Point for the improvement of the channel through the Gaillard Cut was completed in December. Work on this project had been under way since July 1922. The material removed aggregated 1,214,700 cubic yards, of which 203,500 cubic yards were handled during the fiscal year 1925.⁵⁹

⁵⁸ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

⁵⁹ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 PACIFIC ENTRANCE - BALBOA REACH: LOOKING NORTH FROM STATION 2130 SHOWING MIRAFLORES P.I. [POINT OF INTERSECTION] AND APPROACH TO LOCKS MOUTH OF THE CARDENAS RIVER AND MIRAFLORES SPILLWAY CHANNEL ON THE RIGHT; FORT CLAYTON ON THE MIDDLE DISTANCE.



Net Revenue of the Canal and its Auxiliaries

For the fiscal year 1925 [started July 1, 1924] the net income from tolls and other miscellaneous receipts grouped under the head of "transit revenue" was \$13,465,924.72, as compared with \$16,307,948.50 in 1924 and \$10,001,066.50 in 1923.

The net profits on auxiliary business operations conducted directly by The Panama Canal, of which the most important are the mechanical shops, material storehouses, and fuel-oil plants, totaled \$765,916.85, as compared with \$901,624.12 in 1924 while those conducted by the Panama Railroad Co., exclusive of the Panama Railroad Steamship Line, but including commissaries, docks, coaling plants, and cattle industry, showed a profit of \$1,525,910.13, as compared with \$1,044,887.04 in 1924. The total net revenue of the year from all sources, exclusive of the Panama Railroad Steamship Line, was \$15,757,751.70.⁶⁰

⁶⁰Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 BED OF OLD RIO GRANDE RIVER AT LOW TIDE. BALBOA HEIGHTS AND ANCON HILL IN UPPER LEFT-HAND CORNER. BALBOA DOCKS AND SHOPS WITH SOSA HILL BEHIND ON THE RIGHT.



MUNICIPAL ENGINEERING

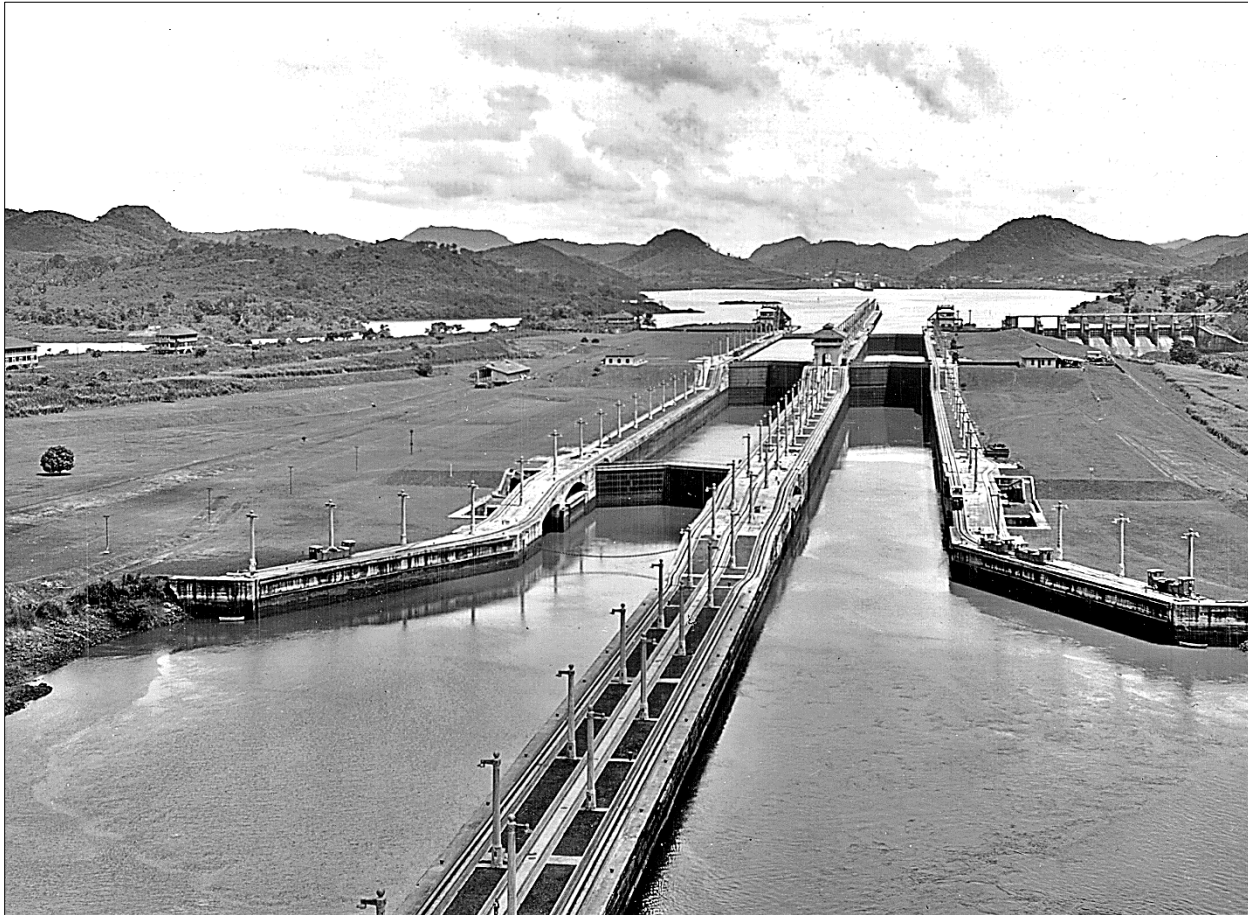
The total output of all pumping stations and of the 3 filtration plants, the amount of water consumed by the cities of Panama and Colon, and the sales of water to vessels, are shown in comparative form:

	July, 1923.	July, 1922.	July, 1921.
	<i>Gallons.</i>	<i>Gallons.</i>	<i>Gallons.</i>
Pumping stations.....	500,967,000	636,373,500	734,425,000
Filtration plants.....	379,720,000	367,976,000	449,527,000
Water consumed by Panama City.....	87,302,000	86,513,000	90,690,000
Water consumed by Colon.....	49,252,500	58,505,000	55,490,000
Sales of water to vessels.....	9,518,341	8,933,941	9,709,842

Work on the installation of two 80-foot radio masts at France Field was started, windlasses were installed and cable furnished for hoisting antennae; work 95 per cent completed. Construction of a water line from the Gamboa-Miraflores main to the Rio Grande reservoir was completed.⁶¹

⁶¹ The Panama Canal Record - Volume XVII, 1923-1924.

1924-07-01 GAILLARD CUT LOOKING NORTH, FROM TOP OF CRANE, SOUTHEAST FOREBAY.



ACCIDENTS

Investigations were conducted and reports submitted by the board of local inspectors on 50 accidents to vessels in transit through the canal or using its terminal ports. The majority of these accidents were trivial. They are classified as follows: Collisions between ships, 6; grounded in the canal, 3; struck bank, 10; struck lock wall, 5; docking accidents, 13; miscellaneous, 13. The following is a brief description of the more serious of the accidents of the year:

The steamship Victorious, southbound on July 3, 1924, brought up against the center wall when approaching the Gatun Locks. Damages were estimated at \$1,000. The accident was considered due to poor judgment on the part of the pilot, and The Panama Canal assumed responsibility.⁶²

⁶² Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 LOOKING NORTHWEST FROM STATION 2295. LA BOCA VILLAGE ON THE LEFT, BALBOA ON THE RIGHT, WITH OIL GRIB IN THE FOREGROUND.



COMMISSARY SYSTEM

The Panama Railroad commissary system, including five wholesale units, nine retail stores, seven manufacturing plants, two electric refrigerating plants, and an industrial laboratory, was operated as in previous years. Gross receipts from sales amounted to \$7, 944, 101. 65, the amount paid for supplies purchased totaled \$6,334,714.38, and the value of the stock at the close of the fiscal year was SI, 401, 376. 69. Profits amounted to \$392,070.48, as compared with \$409,248.86 in 1924.

A new retail commissary building of reinforced concrete was constructed at Cristobal to replace an old wooden and corrugated-iron building that had become unserviceable, extensive improvements were authorized for the retail store at Balboa, and plans for new buildings at Pedro Miguel, Ancon silver market, and La Boca were under consideration at the end of the year.⁶³

⁶³ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 PACIFIC ENTRANCE - SEA END: LOOKING SOUTHWEST FROM BUOYS NOS.11 & 12, SHOWING CHANGARMI, TORLOLITA AND TORTOLA ISLAND, WITH TABOGA AND TABOQUILLA ISLANDS BEHIND ON THE LEFT, AND BATELE POINT ON THE RIGHT.



IMPROVEMENT PROJECTS

In July 1924, work was started on the deepening of the inner harbor at Balboa and the channel from the Pacific entrance to the Miraflores Locks to a ruling depth of 50 feet below mean sea level...

The dredging division operated dipper dredges excavating rock and earth from the canal channel, the Atlantic and Pacific entrances, and Balboa Harbor to the extent of 1,693,250 cubic yards at a unit cost of 80.39 cents per cubic yard. Suction dredges removed 1,472,800 cubic yards of earth and rock at an average cost of 24.18 cents per cubic yard. The total cost of dredging was \$1,717,457.74 on a total yardage of 3,166,050, or an average of 54.25 cents per cubic yard, as compared with 40.34 cents per cubic yard the previous year on 5,102,100 cubic yards at a cost of \$2,058,349.69.⁶⁴

⁶⁴ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 PACIFIC ENTRANCE [FORT AMADOR]: SEA END - LOOKING NORTHWEST FROM BOUYS 13 AND 14 [PANAMA CITY IN THE BACKGROUND].



LANDS AND BUILDINGS

Panama Railroad lands in the cities of Panama and Colon and public lands in the Canal Zone are administered by a joint land office. Rentals for quarters occupied by employees are collected by pay-roll deductions. The Panama Railroad Co.'s gross revenue from real estate operations during the year was \$163,189.15, against which expenses were charged totaling \$59,955.25, leaving a net revenue of \$103,233.90. The number of Panama Railroad leases in effect at the close of the year was 1,265, and of revocable licenses 9.

On June 30, 1925, there were 2,112 licenses in effect covering 7,111 hectares of agricultural land in the Canal Zone, to which the United States holds title. Since July 1, 1924, rental charges have been collected on all of this land at the rate of \$5 per hectare per annum.

The Panama Canal collected from employees and others the sum of \$584,641.63 in rental charges for quarters, which were maintained at an expense of \$582,896.98.⁶⁵

⁶⁵ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 LIRIO LAGOON AND OBISPO DIVERSION DRAINAGE: VIEW OF LOW DEPRESSION IN OLD AMERICAN AND FRENCH DUMP NOW DRAINING NORTH INTO NEW LIRIO LAGOON RUN-OFF AFTER WORK WAS COMPLETED.



SLIDES

Slides occurred during the year at Lirio, Culebra, Cucaracha signal station. Cucaracha village, and Cartagena, all in the Gaillard Cut, necessitating the removal of 650,300 cubic yards of material: but they were of minor importance and did not interrupt or delay navigation. The relative quiescence of the slides may be attributed in part to the improvement of drainage conditions in areas adjacent to the hanks.

This work was continued during the year: 23,765 lineal feet of ditches were dug by drag-line excavator or by hand labor, and 507,385 cubic yards of material were placed in fills or moved in slope work or grading, the greater part of it by the suction dredges assisted by relay pumps⁶⁶

⁶⁶ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 PEDRO MIGUEL LOCKS: LOOKING SOUTH FROM WEST CHAMBER. OUTLETS OF CAIMITILLO RIVERS IN THE LEFT-HAND CORNER.



ACCIDENTS

On July 6, 1924, the steamship *Steel Worker* southbound collided with The Panama Canal's dredge No. 86, when the steamer's steering gear broke. Repairs to the ship were estimated to cost \$1,500 plus demurrage and tug hire and repairs to the dredge \$677.69. The *Steel Worker* was liable. The steamship *Half Moon*, southbound through the canal on July 12, 1924, grounded in Gatun Lake. The damages, including demurrage, tug hire, and incidental expenses, were estimated at \$1,521.58. The accident was due to a failure of the steering gear. The Panama Canal was not responsible. On July 18, 1924, the U. S. Army transport *St. Mihiel* southbound was in collision in the Gaillard Cut with the steamship *David McKelvy* northbound. The collision was due to confusion following a change of signals instituted by the *St. Mihiel*, which vessel was held responsible. Subsequent to the original error both vessels were skillfully handled, and the effects of collision minimized. Repairs to the *St. Mihiel* were estimated to cost \$1,850, and to the *David McKelvy* \$800. The Panama Canal was not responsible.⁶⁷

⁶⁷ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 MIRAFLORES LOCKS: LOOKING SOUTH FROM EAST CHAMBER SHOWING SOUTH APPROACH TO MIRAFLORES LOCKS, MIRAFLORES P.I. [POINT OF INTERSECTION] AND ENTRANCE TO BALBOA REACH. OUTLINE OF BREAK MIRAFLORES SLIDE ON COCOLI HILL ON THE RIGHT.

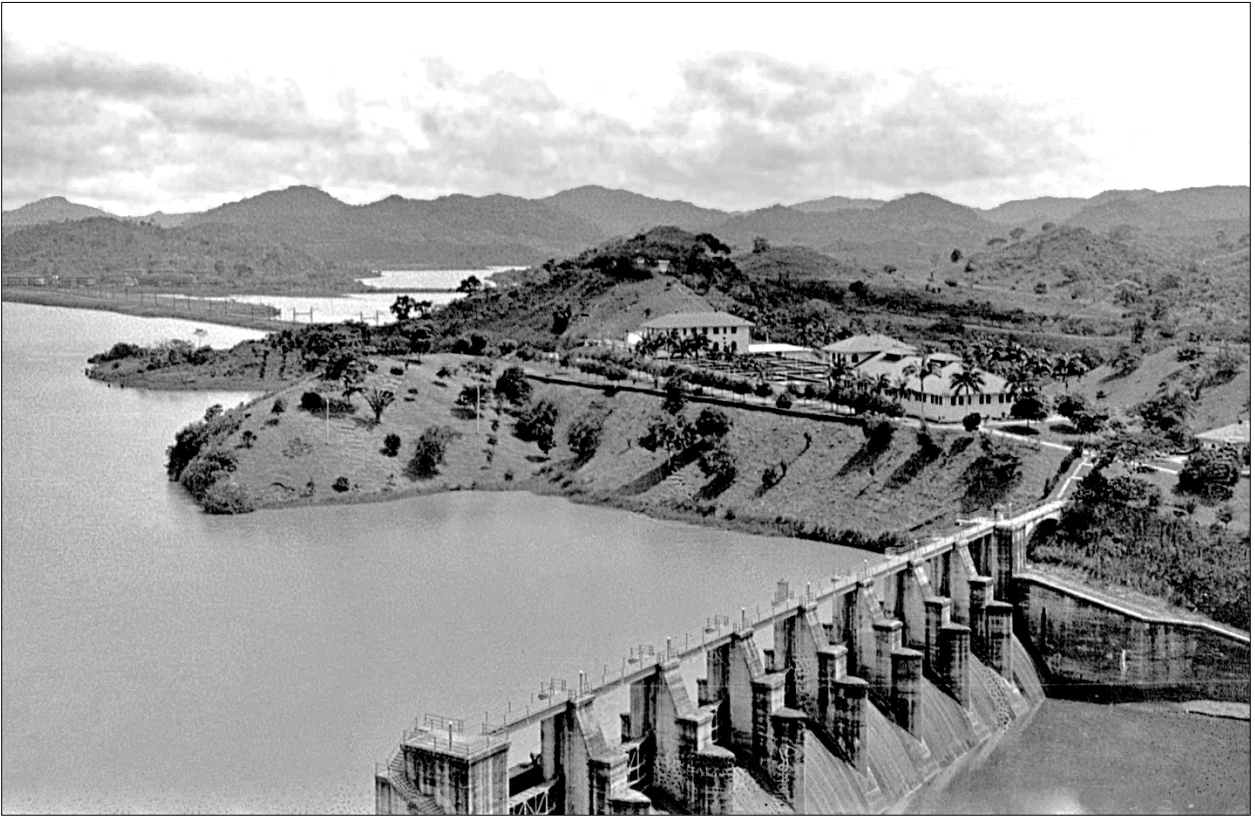


VESSELS ENTITLED TO FREE TRANSIT AND LAUNCHES OF LESS THAN 20 TONS NET MEASUREMENT

Naval vessels and other public vessels of the United States, Panama and Colombia, and vessels sent through the canal for repair at the Balboa shops are exempt from the payment of tolls, and such vessels are not included in the transit statistics of the preceding sections. They accounted for the following additional transits: Public vessels of the United States, 378; public vessels of the Republic of Panama, 2; vessels for repair, 6; or a total of 386. Launches of less than 20 tons net measurement are also excluded from the traffic statistics, although they are not exempt from the payment of tolls.⁶⁸

⁶⁸ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 MIRAFLORES LOCKS: LOOKING NORTH FROM EAST CHAMBER. GENERAL VIEW OF MIRAFLORES SPILLWAY AND FILTRATION PLANT. PORTION OF RED TANK VILLAGE IN UPPER LEFT- HAND CORNER.



MUNICIPAL ENGINEERING

Water supply. There was the usual maintenance work on pipelines, reservoirs, filtration plants, and pumping stations. The water main between Gamboa and Miraflores, supplying the southern district, which had been leaking badly, was recalked with lead at an expense of \$51,002.72, and this has cut the maintenance cost of the line in half. Location survey was started, and plans were prepared for the improvement of the Gatun and Cristobal - Colon water systems at an estimated cost of \$400,000, and requisitions for material needed in this work, amounting to more than \$100,000, were prepared and forwarded to the United States for purchase. The construction of a new concrete water tank at Paraiso, costing \$4,303.04, was completed...The water consumption at those places varies so greatly that a Venturi or single meter will not register the minimum as well as the maximum use. The compound meters will accurately register all use. Work was started on improvements in the water system at the Balboa docks to permit the more rapid delivery of water to ships. This job is estimated to cost \$4,500.⁶⁹

⁶⁹ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 MIRAFLORES LOCKS: LOOKING SOUTH FROM EAST SIDE OF APPROACH WALL. RUN-OFF CHANNEL FOR MIRAFLORES SPILLWAY ON EXTREME LEFT.



ACCIDENTS

On July 31, 1924, the steamship Tustem southbound through the canal and tied up to the approach wall at the Pedro Miguel Lock was rammed astern by the U. S. S. Curlew, a Navy tug, which was tying up behind her. The accident was due to confusion in the engine room of the Curlew, the engines being worked full speed ahead in response to a signal from the bridge calling for full speed astern. Damages to the steamship Tustem were estimated at \$10,325 plus demurrage. The tug was only slightly damaged. The Panama Canal was not responsible.

The steamship Bethelridge northbound through the canal on August 7, 1924, went ashore in Gatun Lake, when the master, who was under the influence of liquor, took the wheel and, disregarding the advice of the pilot, steered the ship out of the channel and into shallow water. The damage to the ship was estimated at \$621, including tug hire.⁷⁰

⁷⁰ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 PACIFIC ENTRANCE - BALBOA REACH: LOOKING SOUTH FROM STATION 2240, SHOWING MUD FLATS AT LOW TIDE ON WEST BANK OF CANAL. FARFAN POINT (NEAR BACK RANGE LIGHT), GUINEA POINT, CHANGARMI ISLAND, IN TURN APPEARING IN LEFT HAND CORNER.



IMPROVEMENT PROJECTS

In July 1924, work was started on the deepening of the inner harbor at Balboa and the channel from the Pacific entrance to the Miraflores Locks to a ruling depth of 50 feet below mean sea level. A suction dredge and two dipper dredges were employed in intervals. and removed 631,700 cubic yards of material charged to this project...

On December 22, 1924, the steamship Anglo Egyptian northbound through the canal with a cargo of 10,000 tons of wheat struck the bank in the Gaillard Cut, with serious damage to plates and frames in the fore tank and No. 1 hold. A part of the cargo was spoiled, and the remainder was temporarily discharged to permit the drydocking of the ship at Balboa for repairs estimated to cost \$50,000. The accident was due to the heating of a main bearing of the steering engine, causing the steering gear to bind. It was held that The Panama Canal was not responsible.⁷¹

⁷¹ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 PACIFIC ENTRANCE - BALBOA REACH: LOOKING EAST FROM STATION 2242. GENERAL VIEW OF BALBOA DOCKS AND SHOPS. DREDGING DIVISION BARGE REPAIR, DOCK 14, IN THE FOREGROUND. SIGNAL STATION ON SOSA HILL IN UPPER RIGHT-HAND CORNER.



MECHANICAL WORK

Marine work. The most extensive marine repair job of the year was on the steamship Colombia, which was wrecked on Caño Island off the Pacific coast of Costa Rica June 20, 1924. The ship was brought to Balboa on July 17, 1924, and dry docked with some difficulty. A general list of repairs included the renewal of the entire bottom and inner bottom underneath holds 1 and 2, renewal of keel, vertical keel, floors, margins, lower parts of frames and lower bulkheads in the same location. All of the operating and deck machinery was opened up, examined, and repaired. Passenger and crew accommodations were cleaned, repainted, and revamped. The work was completed in a time period of 80 days. The steamship Sisak, which had been wrecked off the coast of Ecuador, was dry docked at the same time as the steamship Colombia, but the damages proved greater than was at first thought, and it was finally decided that the ship was not worth repairing.⁷²

⁷² Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 PACIFIC ENTRANCE - SEA END: LOOKING SOUTH FROM STATION 2252. PANAMA R.R. DOCK & OIL CRIB ON THE LEFT AND BALBOA FLATS AT LOW TIDE ON THE RIGHT.



Panama Canal Traffic during Fiscal Year 1924 by Nationality of Vessels

Commercial traffic through the Panama Canal during the fiscal year 1924, was the heaviest in the history of the Canal. Increases over the fiscal year 1923, were as follows: Transits, 1,263, or 31.8 per cent; Panama Canal net tonnage, 7,543,093 tons or 40.5 per cent; tolls, \$6,782,548.69 or 38.7 per cent; and tons of cargo carried, 7,426,835 or 38 per cent. Transits of vessels of United States registry during the fiscal year 1924, exceeded those of all other nationalities combined, with vessels of British, Japanese, German, Norwegian, and Dutch registry following in the order named. Vessels of these 6 nationalities made up 89.8 per cent of the total transits of the Canal during the year... The percentage of increase of vessels of United States registry, 1924 over 1923, ranges from 5.2 tons of cargo carried to 6.1 in number of transits, while other nationalities, excepting German, show decreases... Transits of vessels of German registry have risen from 17, during the fiscal year 1920, when the first German vessels transited the Canal, to 150 in the fiscal year 1924.⁷³

⁷³ The Panama Canal Record - Volume XVII, 1923-1924.

1924-07-01 PACIFIC ENTRANCE - SEA END: LOOKING NORTHWEST FROM BUOY NO.17 SHOWING MUD FLATS AT LOW TIDE ON WEST BANK AND COURSE OF THE MATUTELA RIVER. FARFAN RIVER AT THE EXTREME LEFT OF PICTURE.



Facilities for Shipping

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.⁷⁴

⁷⁴ The Panama Canal Record - Volume XVII, 1923-1924.

1924-07-01 PACIFIC ENTRANCE - SEA END: LOOKING WEST FROM SPAR BUOYS 15 AND 16, SHOWING A PORTION OF FARFAN BEACH AND RIVER COURSE AT LOW TIDE, FARFAN POINT ON EXTREME RIGHT.



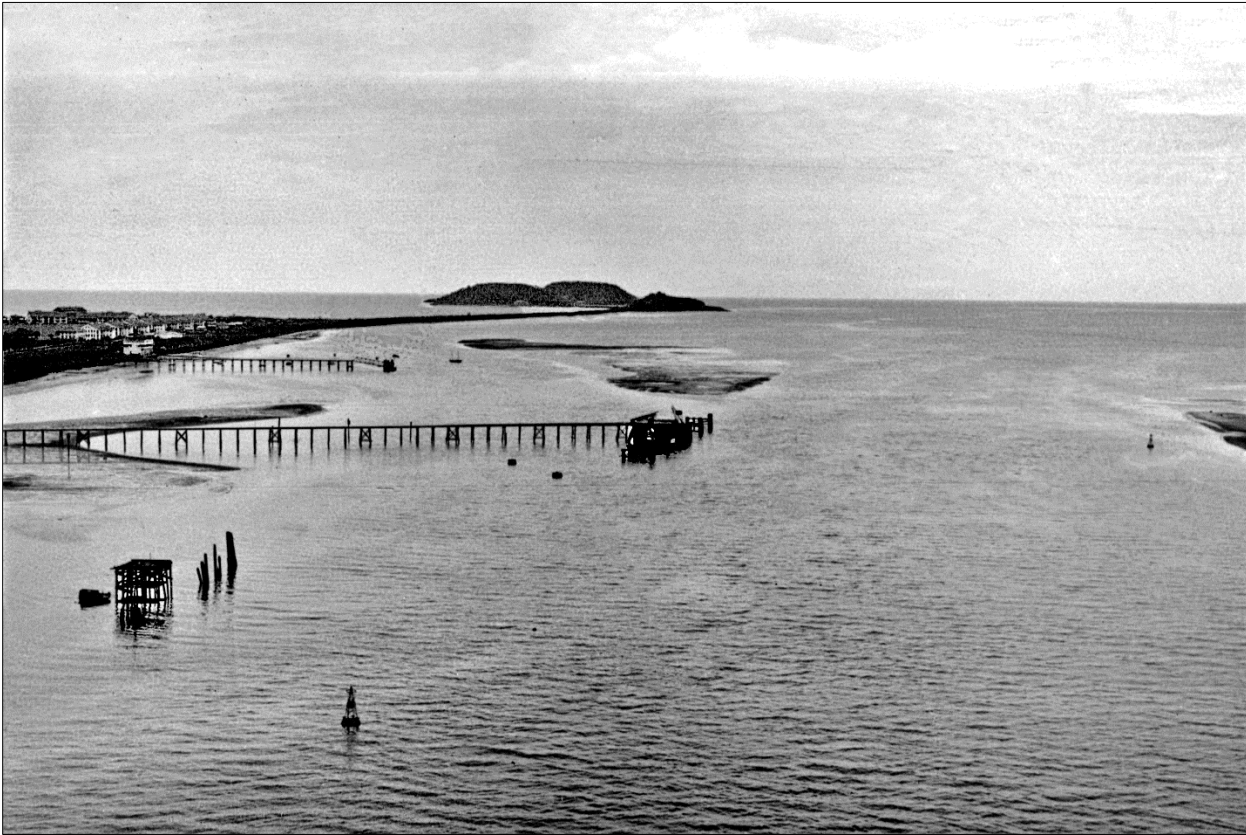
Traffic for Fiscal Year Sets New High Record.

Commercial traffic through the Canal in the month of June was 377 ocean-going ships, paying \$1,792,821.22 in tolls, and 2 launches paying \$13.20. This brings the total for the fiscal year ending June 30, 1923, to 5,230 commercial ships, paying \$24,290,963.54 in tolls, and establishes a new high yearly record.

Comparing the fiscal year 1924, with the calendar year 1923, the previous record year, shows the following: Transits, an increase of 193 or 3.8 per cent; tolls, an increase of \$1,324,125.36 or 5.8 per cent. Comparison with the fiscal year 1923, shows an increase in transits of 1,263 or 31.8 per cent; and an increase in tolls of \$6,782,548.69 or 38.7 per cent.⁷⁵

⁷⁵ The Panama Canal Record - Volume XVII, 1923-1924.

1924-07-01 PACIFIC ENTRANCE - SEA END: LOOKING SOUTH FROM BUOY NO.18 SHOWING BUOYED CHANNEL OUT TO SEA WITH OIL BERTH, QUARENTINE STATION LANDING AND NAOS ISLAND BREAKWATER ON THE LEFT.



MAINTENANCE OF CHANNEL

To maintain and improve the channel approximately the same dredging equipment was used as during the previous year, i.e. three 15-yard dipper dredges and two 20-inch pipe-line suction dredges. Of the three dipper dredges two were kept in service. with the third in reserve or undergoing repair. Of the two suction dredges one lost 15 days, and the other 47 days, for repairs. A ladder dredge was held in reserve throughout the year.

Auxiliary equipment included five tugboats, of which four were commissioned, with a fifth in reserve or undergoing repairs, two 250-ton floating cranes commissioned alternately, except when emergencies required that both be used, two drill boats, an air compressor mounted on a barge, a relay pump similarly mounted, a hydraulic grader, a crane boat, 13 launches, of which 10 were constantly in service, and the scows required to handle excavated material from the dipper dredges to the dumps.⁷⁶

⁷⁶ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 PACIFIC ENTRANCE - SEA END: LOOKING NORTHWEST FROM BUOYS NOS.13 & 14. MUD FLATS AT LOW TIDE SHOWING IN THE FOREGROUND; FORT AMADOR IN THE MIDDLE DISTANCE AND THE CITY OF PANAMA ON THE BACKGROUND.



PUBLIC HEALTH

Panama. The population of the city of Panama for the year was 59,635. From this population, 1,128 deaths occurred during the year, of which 1,088 were from disease, giving a rate of 18.25 for disease alone, as compared with 19.75 for the preceding year. There were 2,161 live births reported during the year and 121 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 38.27 per 1,000 population. The infant mortality rate, based on the number of five births reported, was 124.06. Of the total number of births reported 5 per cent were stillbirths. Of the total deaths reported, 33 per cent occurred among children under 5 years of age. The maternal mortality rate (from conditions due to the puerperal state) was 6.14 per thousand births, stillbirths included.

Colon. The population of the city for the year was 31,285. From this population 450 deaths occurred during the year, of which 432 were from disease, giving a rate of 13.81 for disease, as compared with 12.92 for 1924.⁷⁷

⁷⁷ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-07-01 PACIFIC ENTRANCE - SEA END: LOOKING NORTHEAST FROM GAS BUOYS NOS.9 & 10 ACROSS NAOS ISLAND BREAKWATER. FORT AMADOR AND BALBOA IN THE UPPER LEFT-HAND CORNER. PANAMA CITY IN THE MIDDLE DISTANCE WITH PANAMA HARBOR AND ENTRANCE THERE TO BEYOND.



Population of the Canal Zone

A house-to-house canvass of the civil population of the Canal Zone, taken between June 1 and June 30, 1924, by the Police and Fire Division, shows a total civil population of 27,143. This is an increase of 2,175 over the 24,968 listed in 1923. The population as of June 1924, was distributed as follows: ⁷⁸

	Americans.					All others.					
	Total men.	Em- ployees.	Total women	Em- ployees.	Chil- dren.	Total men.	Em- ployees.	Total women	Em- ployees.	Chil- dren.	Total.
Balboa District..... {	1,763	1,497	1,972	302	2,035	3,270	2,012	2,489	41	4,451	3,852
Cristobal District..... {	580	540	664	25	766	3,254	2,148	1,956	74	3,816	15,980
Prisoners.....	25					98		4			127
Total employees....		2,037		327			4,160		115		6,639
Total persons.....	2,368		2,636		2,801	6,622		4,449		8,267	27,143

¹ Includes 142 civilian employees of Army and Navy.

⁷⁸ The Panama Canal Record - Volume XVII, 1924-1925.

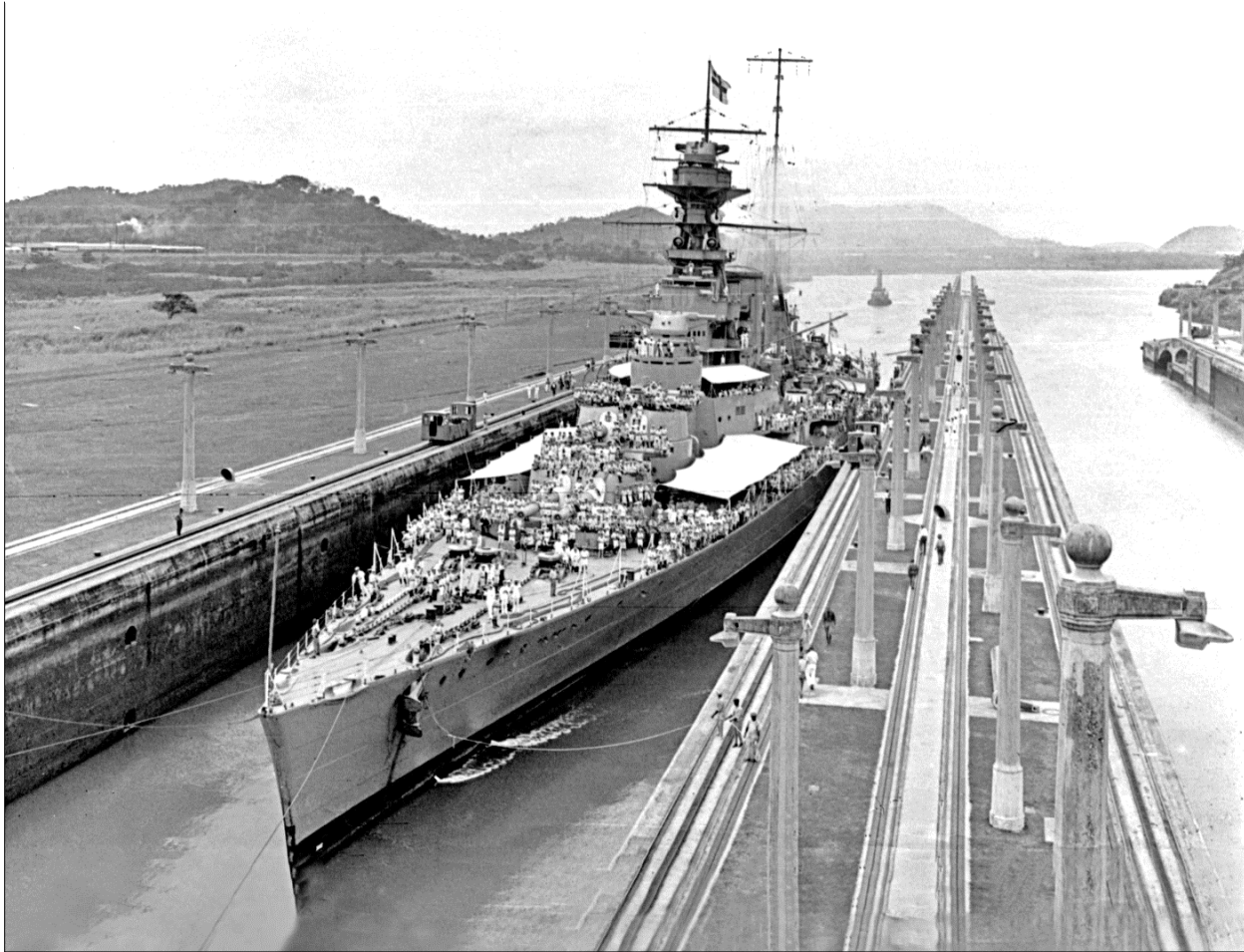
1924-07-23 LA PITA POINT IMPROVEMENT PROJECT: LOOKING SOUTH FROM 150FT. ELEVATION, NORTH END.
H.M.S. "HOOD" (860.6 X 105.2 X 32' DRAFT AND 45,000 TONS DISPLACEMENT) SHOWN ROUNDING APEX OF TURN,
LOCATION SLIGHTLY WEST OF MID- CHANNEL, STATION 1660.



HMS Hood was a battlecruiser of the Royal Navy. Hood was the first of the planned four Admiral-class battlecruisers to be built during the First World War. Already under construction when the Battle of Jutland occurred in mid-1916, that battle revealed serious flaws in her design, and despite drastic revisions she was completed four years later. Hood was involved in many showing-the-flag exercises between her commissioning in 1920 and the outbreak of war in 1939, including training exercises in the Mediterranean Sea and a circumnavigation of the globe with the Special Service Squadron in 1923 and 1924. When war with Germany was declared, Hood was operating in the area around Iceland, and she spent the next several months hunting for German commerce raiders and blockade runners between Iceland and the Norwegian Sea. In May 1941, Hood and the battleship Prince of Wales were ordered to intercept the German battleship Bismarck and the heavy cruiser Prinz Eugen, which were in route to the Atlantic, where they were to attack convoys. On 24 May 1941, early in the Battle of the Denmark Strait, Hood was struck by several German shells, exploded, and sank with the loss of all but 3 of her crew of 1,418.⁷⁹

⁷⁹ https://en.wikipedia.org/wiki/HMS_Hood

1924-07-23 H.M.S. "HOOD" IN LOWER EAST CHAMBER, MIRAFLORES LOCKS, PANAMA CANAL.

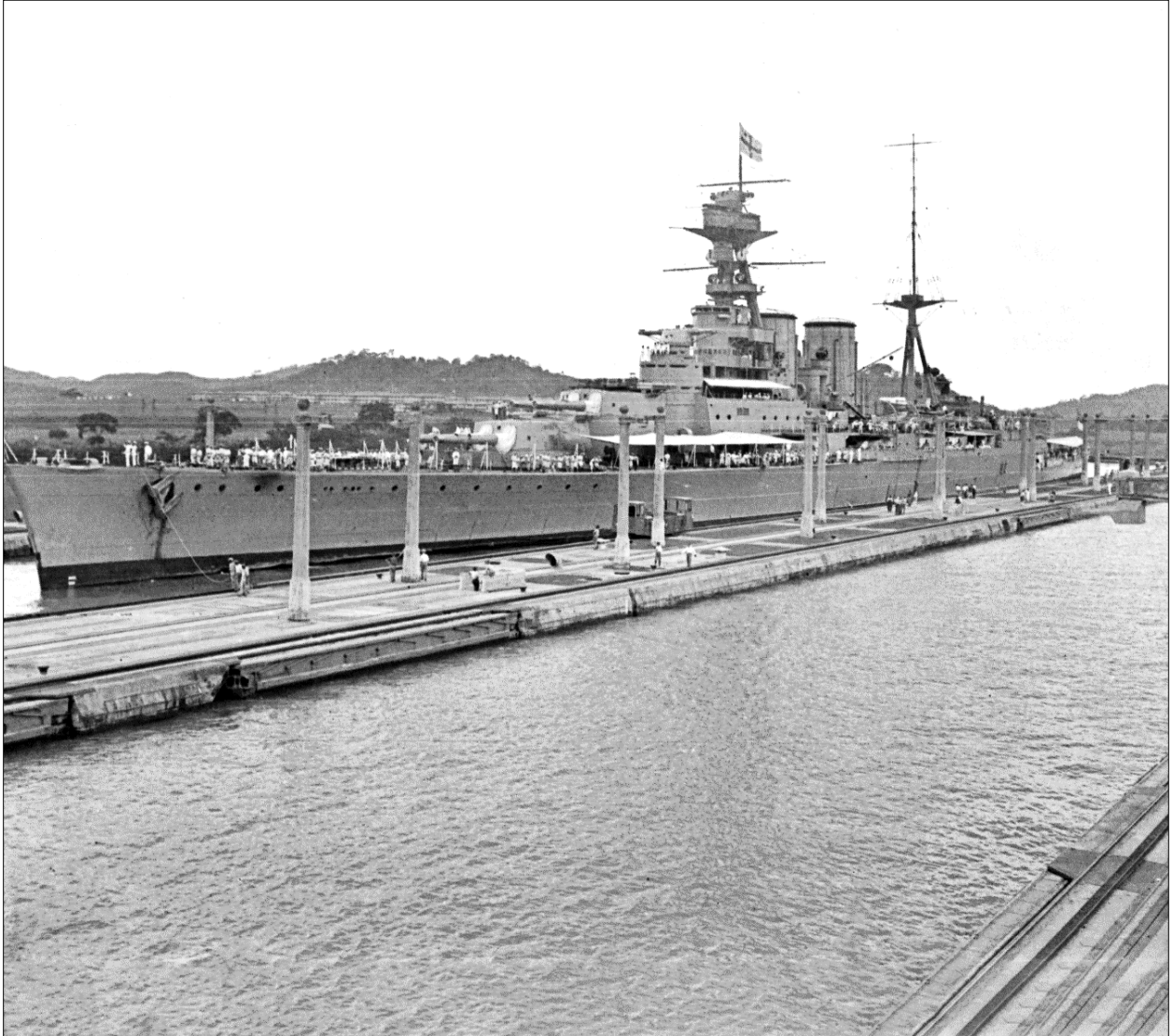


British Warships Establish New Records for Size of Vessels Through the Canal

With the passage of the British warships Hood and Repulse through the Canal on July 23 and 24, new records were established for size of ships and tolls paid for the transit of the Panama Canal. Both of the vessels are larger than any other which has used the Canal to date. The Hood is 860 feet 7 inches in length, has a maximum beam of 105 feet 2h inches, and her displacement tonnage at the time of transit was 44,799 tons. At 50 cents per ton of displacement, the tolls on the Hood amounted to \$22,399.50. The Repulse is 794 feet 2^{1/2} inches in length, with a beam of 102 feet 8 inches, and displacement at time of transit was 35,359 tons, requiring tolls of \$17,679.50. The draft of the Hood was 32 feet and that of the Repulse 30 feet.⁸⁰

⁸⁰ The Panama Canal Record - Volume XVII, 1924-1925.

1924-07-23 H.M.S. "HOOD" IN LOWER EAST CHAMBER, MIRAFLORES LOCKS, PANAMA CANAL.



Previous records were Length, H.M.S. Renown, 795 feet; beam, United States battleships Mississippi and New Mexico, 97 feet 4| inches; displacement, H.M.S. Renown, 33,379 tons; tolls, steamship America, \$16,855; draft, steamship Heffron, 35 feet 2 inches.

On account of the great beam of the Hood and the Repulse, their passage through the locks was of especial interest. The width of the lock chambers is 110 feet, which left, in the case of the Hood, a clearance of 2 feet 4^{3/4}| inches on either side. The usable length of the locks is 1,000 feet, which left approximately 70 feet of clearance fore and aft between the Hood and the lock gates.⁸¹

⁸¹ The Panama Canal Record - Volume XVII, 1924-1925.

1924-07-23 H.M.S. "HOOD" ENTERING EAST CHAMBER, PEDRO MIGUEL LOCK, PANAMA CANAL.

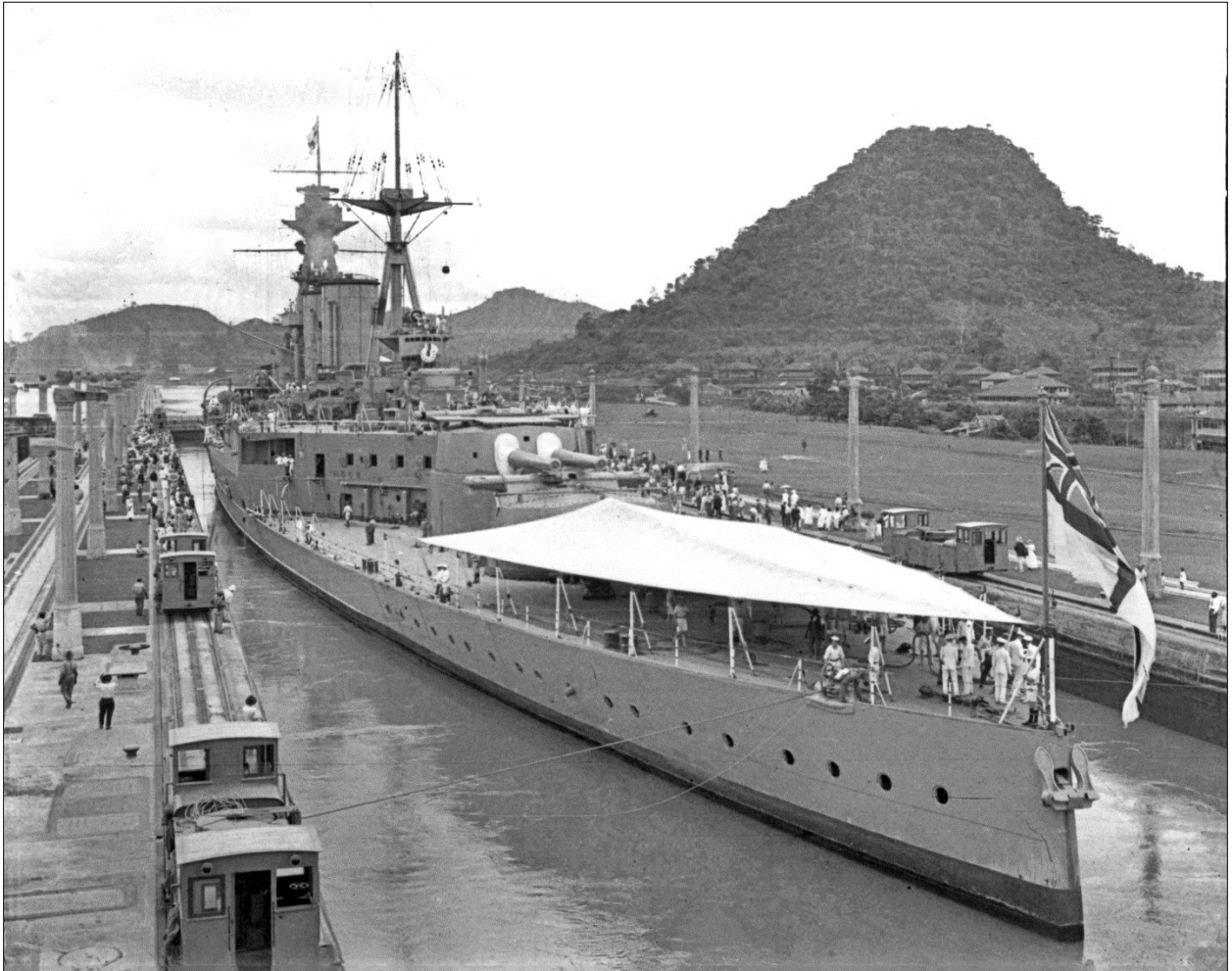


On account of the belts of armor, the greatest beam of the ships was below the water line. Outriggers, consisting of poles attached vertically to booms, were placed on either side, to indicate to the pilot the full beam of the ship, and seamen were stationed opposite the outriggers, with signal flags to signal to the pilot if the vessel should approach closer to the wall than 2 feet. Eight towing locomotives were used, 4 on either side. The transit of the Canal was handled without incident and apparently without difficulty.

The vessels answered the helm extremely well and there was no trouble in entering the locks or in passage through any part of the Canal channel. On arrival off the Gulf of Panama, 4 of the smaller cruisers in the squadron continued to the south and will return to England by way of the Strait of Magellan, making calls at South American ports on the way.⁸²

⁸² The Panama Canal Record - Volume XVII, 1924-1925.

1924-07-23 PANAMA CANAL: H.M.S. "HOOD" IN EAST CHAMBER PEDRO MIGUEL LOCK.



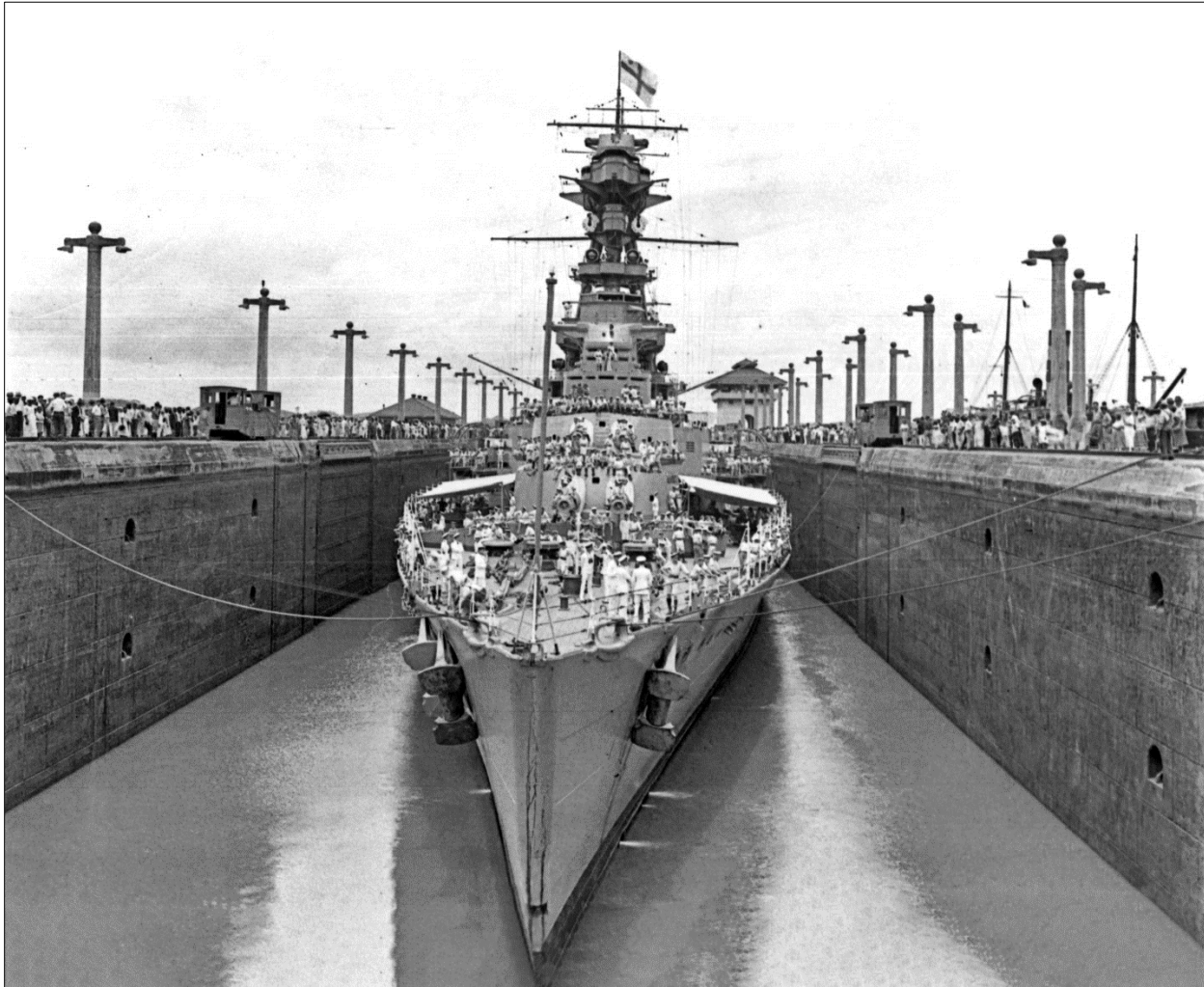
On arrival, the Hood and Repulse started through the Canal, proceeding as far as Gaillard Cut on the first day. The Hood tied up alongside the upper approach wall of Pedro Miguel Lock on the east side, and the Repulse was held in the east chamber of Pedro Miguel Lock, aft of the Hood. Both vessels spent the night at Pedro Miguel and made an early start the following morning to complete transit.

Commercial traffic was handled through the west side of Pedro Miguel Lock during the time that the warships occupied the east side.

The Hood, Repulse, and Adelaide completed transit of the Canal early in the afternoon of July 24, and without stopping at Cristobal, cleared for Kingston, Jamaica.⁸³

⁸³ The Panama Canal Record - Volume XVII, 1924-1925.

1924-07-23 H.M.S. "HOOD" IN EAST CHAMBER, PEDRO MIGUEL LOCK, PANAMA CANAL.



During the month of July, 422 commercial vessels and 18 vessels belonging to or chartered by the United States Government passed through the Panama Canal, making the total transits for the month 440. The daily average number of transits was 14.19.

Two outstanding features of the month's transits were the transit of a floating dry dock on the 15th, and the passage through the Canal of the British warships Hood and Repulse on the 23d and 24th. The latter are the largest vessels that have been through the Canal. These transits were accomplished without unusual incident though the Hood had a beam of 105 feet 2^{1/2} inches, leaving but 2 feet 4^{3/4} inches clearance on either side in the lock chambers. The total tolls collection for the month was \$1,935,296.43, or a daily average of \$62,428.92.⁸⁴

⁸⁴ The Panama Canal Record - Volume XVII, 1924-1925.

1924-08 NEW CRISTOBAL COTTAGE, TYPE 17.



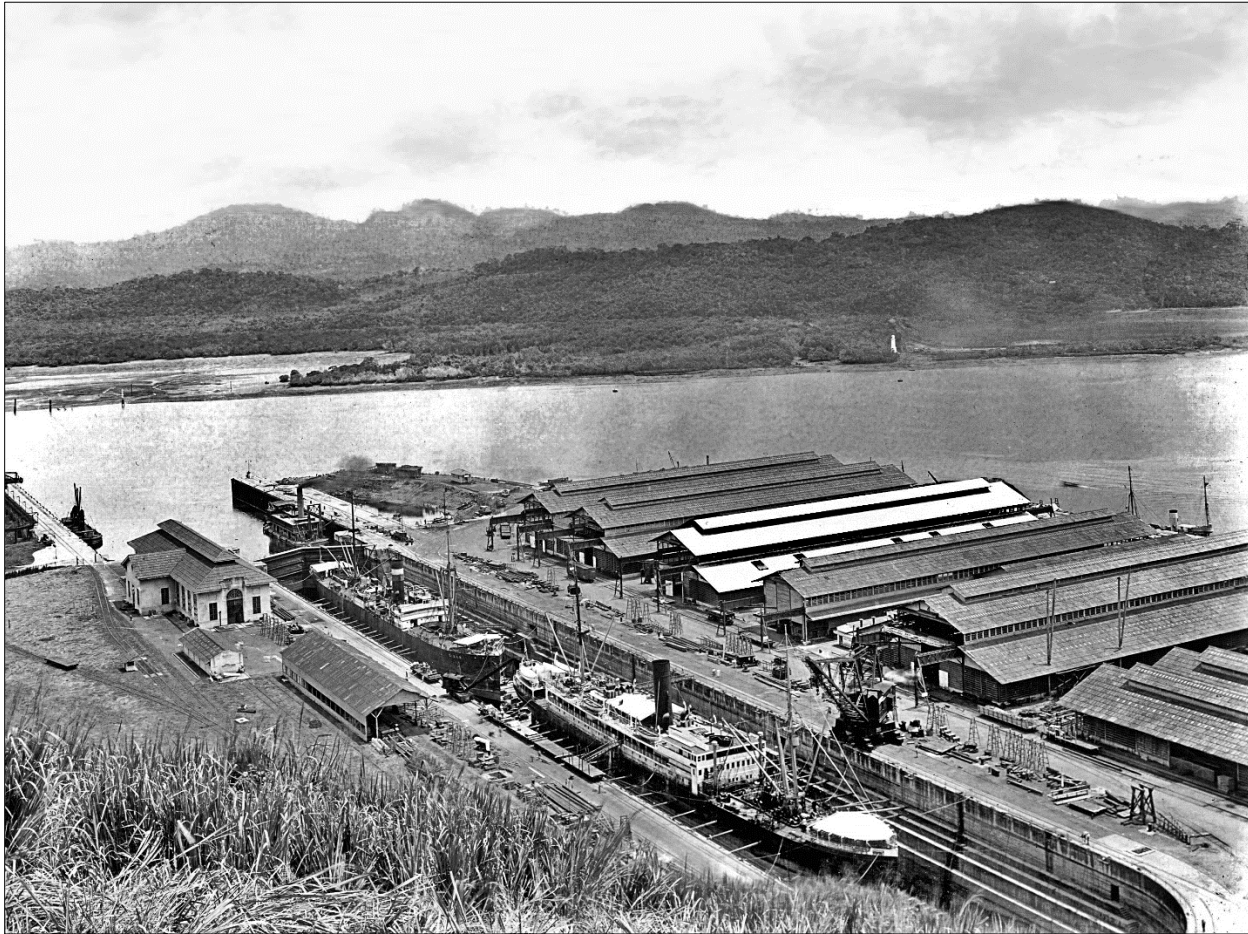
Besides the usual maintenance and repair work on all Panama Canal and Panama Railroad buildings the constructing quartermaster division of the supply department began the erection of several new buildings, including the following: A concrete retail commissary store at Cristobal, estimated to cost \$241,821.60; new concrete telephone exchanges at Cristobal, Gatun, and Pedro Miguel, estimated to cost \$59,000, and 15 cottages at New Cristobal, at \$7,000 each, or a total of \$105,000. Alterations to the Balboa telephone exchange were completed at a cost of \$7,500.⁸⁵

A number of important construction projects, which were authorized and commenced during the preceding year, were completed in 1925. These included the new reinforced concrete commissary at Cristobal, the three new telephone exchange buildings at Cristobal, Gatun, and Pedro Miguel, and 15 new cottages at Cristobal.⁸⁶

⁸⁵ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.

⁸⁶ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-08-07 DRYDOCK AND SHOP BUILDINGS FROM SOSA HILL SHOWING S.S. COLUMBIA AND S.S. SISAK.



SALVAGE OF THE KOSMOS LINE STEAMER "SISAK"

The Kosmos Line steamer Sisak, which went ashore off Bahia de Caraquez, Ecuador, on May 26, 1924, was brought to Balboa in July. The Canal salvage vessel Favorite arrived on the scene on June 1. It was found that the salvage contract had been awarded to another concern, and after some time spent in negotiations with the master of the Sisak and the local agent for the Kosmos Line, the Favorite started to return to Balboa but was recalled and her crew took charge of wrecking operations on June 7, 1924. After nearly a month of difficult and dangerous work, during which two employees suffered fractured bones, the vessel was floated on July 4. On July 9, the Sisak left the scene of the wreck in tow of the tugs Killerig and Favorite, arriving at Balboa on July 13. On July 15 the Sisak was placed in dry dock at Balboa, together with the Pacific Mail steamship Colombia, which had been aground off the west coast of Costa Rica.⁸⁷

⁸⁷ The Panama Canal Record - Volume XVII, 1924-1925.

1924-08-18 LA PITA POINT IMPROVEMENT PROJECT - SIX TON BLAST NEAR STATION 1653.



DREDGING

A slide occurred on the west side of the Canal between stations 2070.50 and 2074.50, Cocoli Hill, at 2.30 p. m. on December 8th. Approximately 15,000 cubic yards of material were carried into the channel. Twenty-two feet showing on the west prism line in several places; 30 feet at a point 25 feet east of the west prism line, and 40 feet 50 feet out. Approximately 25,000 yards will have to be removed to restore normal channel widths and depths. Buoys were immediately placed to protect shipping, and a dredge was transferred from the Cut on the 15th to this locality.

Work of widening the channel at La Pita Bend, which was commenced in July 1922, and involved the removal of 1,220,000 cubic yards of material, 80 per cent rock (estimated), was completed during the month and the improved channel was opened to shipping December 27, 1924. The total quantity of material actually removed was 1,244,700 cubic yards, 92 per cent rock, or 24,700 cubic yards in excess of estimate. The time required was 2\ years as estimated, and the cost was well within the estimate.⁸⁸

⁸⁸ The Panama Canal Record - Volume XVII, 1924-1925.

1924-09 MIRAFLORES SPILLWAY DAM, UPSTREAM SIDE [MIRAFLORES STEAM PLANT ON THE LEFT].



ELECTRICAL POWER AND WORK

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., as compared with the corresponding month in 1923 and 1922, are shown in the following tabulation:

In addition to the usual operation, maintenance, and repair work, additions to or repairs of electrical installations were made on 35 vessels during the month.⁸⁹

Item.	August, 1924.	August, 1923.	August, 1922.
Gross output, KWH:			
Gatun hydroelectric station.....	5,692,400	4,581,400	4,297,900
Miraflores steam plant.....			490
Power distributed to consumers..... KWH..	4,423,923	3,979,534	3,620,168
Loss of power in plants, accessories, transmissions, and transformers..... KWH..	1,268,477	601,866	678,022
Per cent of loss of power to gross output.....	22.28	13.13	15.77
Water consumption..... cubic feet..	4,274,714,457	3,628,060,883	3,386,946,550
Oil consumption..... barrels..	284.80	873	1,885

⁸⁹ The Panama Canal Record - Volume XVII, 1924-1925.

1924-09 U.S.S. COLORADO, SOUTHBOUND, CUCARACHA [GAILLARD CUT].

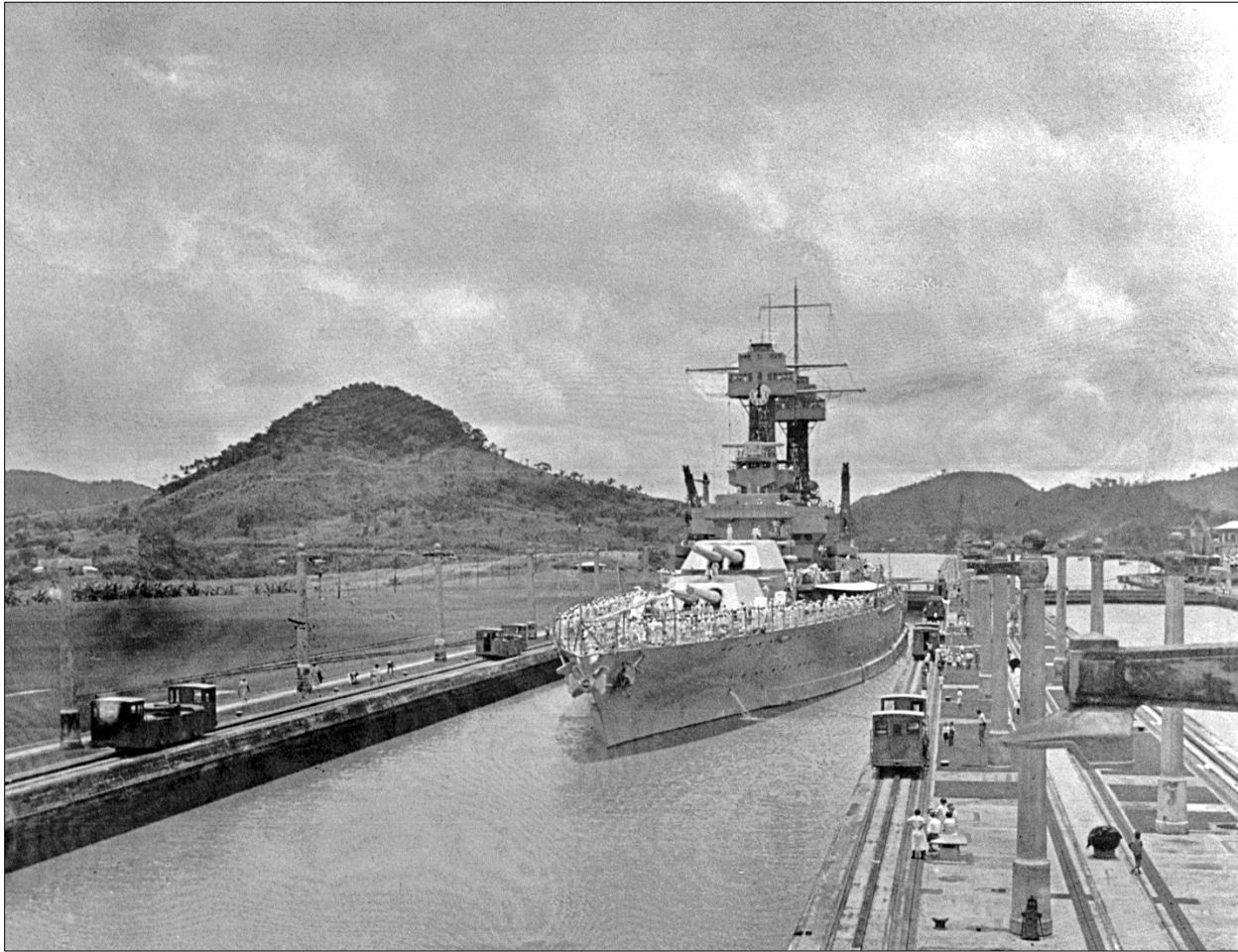


USS Colorado (BB-45) was a battleship of the United States Navy that was in service from 1923 to 1947. She was the lead ship of the Colorado class of battleships. Her keel was laid down on 29 May 1919, by the New York Shipbuilding Corporation. She was launched on 22 March 1921, and commissioned on 30 August 1923. She was armed with eight 16-inch (406 mm) guns and fourteen 5-inch (127 mm) deck guns; two 5-inch guns were removed in an overhaul. Colorado took her maiden voyage in 1923, to Europe. She later operated with the Battle Fleet and sailed through the Pacific during the interwar years.

During World War II, in May 1942, soon after USA's entry into the war, Colorado undertook a defensive patrol near the Golden Gate Bridge to stop a possible Japanese invasion. She then sailed to Fiji, to stop any further Japanese advance into the Pacific. Next, she supported the landings on Tarawa, the Marshall Islands, Saipan, Guam, and Tinian.⁹⁰

⁹⁰ [https://en.wikipedia.org/wiki/USS_Colorado_\(BB-45\)](https://en.wikipedia.org/wiki/USS_Colorado_(BB-45))

1924-09-03 PANAMA CANAL. U.S.S. COLORADO IN PEDRO MIGUEL LOCK.

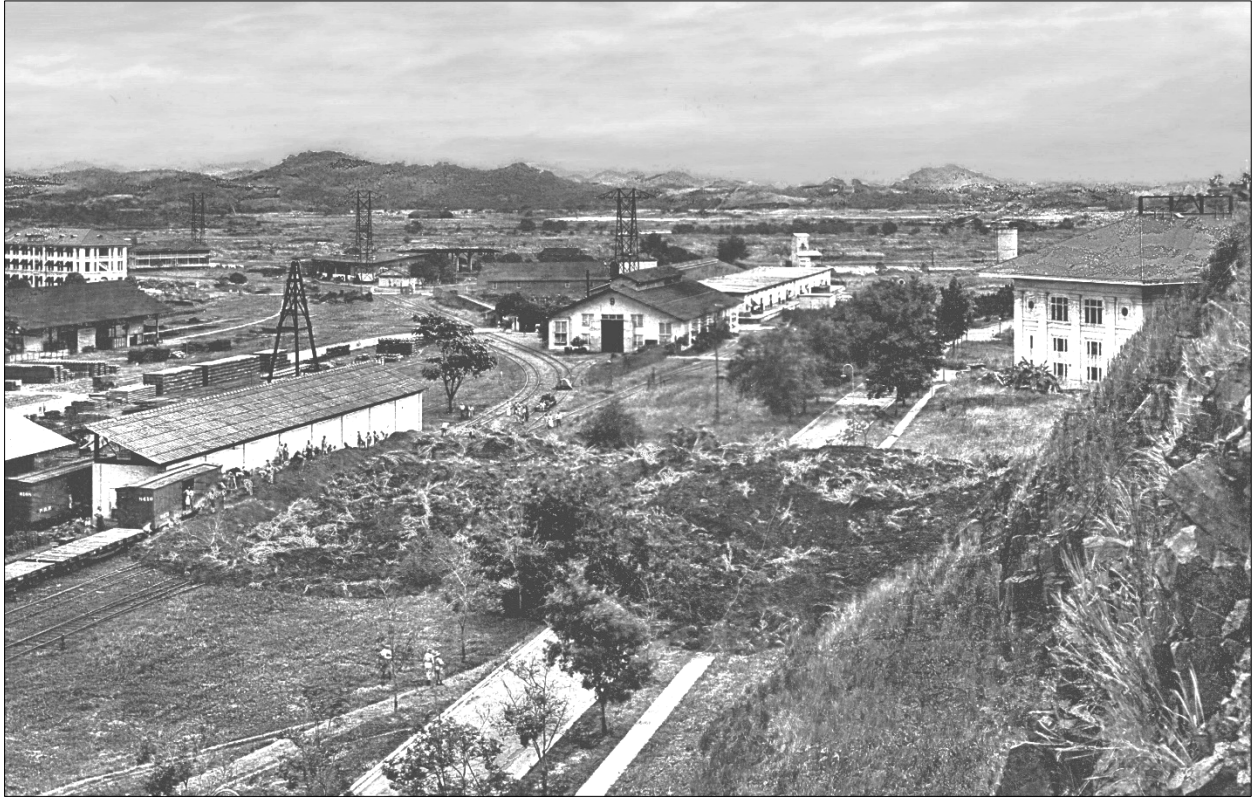


On 24 July 1944, during the shelling of Tinian, Colorado received 22 shell hits from shore batteries but continued to support the invading troops until 3 August. She later arrived in Leyte Gulf on 20 November 1944, to support American troops fighting ashore. On 27 November, she was hit by two kamikazes which caused moderate damage.

After that, Colorado sailed to Luzon on 1 January 1945, where she participated in the preinvasion bombardments in Lingayen Gulf. She returned to Okinawa on 6 August and sailed from there to Japan for the occupation of the country, arriving in Tokyo on 27 August. Departing Tokyo Bay on 20 September, she arrived at San Francisco on 15 October. She was placed out of commission in reserve in Pearl Harbor on 7 January 1947 and sold for scrapping on 23 July 1959. She won seven battle stars during her service. She won seven battle stars during her service. Many of Colorado's anti-aircraft guns are in museums across the state of Colorado.⁹¹

⁹¹ [https://en.wikipedia.org/wiki/USS_Colorado_\(BB-45\)](https://en.wikipedia.org/wiki/USS_Colorado_(BB-45))

1924-09-13 SLIDE ON WEST SIDE OF SOSA HILL OF APPROXIMATELY 25,000 CUBIC YARDS OF EARTH. LOOKING NORTH.



BIG SLIDE AT SOSA HILL

As a result of the continuation of the heavy downpour of rain on this side of the Isthmus, the earth in these parts is becoming thoroughly soaked, which indicates that if the weather continues on the same scale for another week or two the result in, slides may be alarming. Day before yesterday, Sosa Hill, where one of. The Canal Zone signal stations is located, was minus over 25,000 cubic feet of its makeup At about 2 o'clock in the afternoon of that day an avalanche of water-soaked earth and rock parted from the hill and in. quick time made its way down the western slope and rested about ten feet deep from the foot of the hill over across the road leading into La Boca and extending to the scrap heap of the molding plant of the Balboa Shops, burying at the same time parts of the Panama Railroad switching track and pushing a box car over against the scrap heap. No one has been reported hurt although one man had a narrow escape, having passed the now inundated area but a few seconds before the big slide.⁹²

⁹² Walrond, H. (1924, 09 13). BIG SLIDE AT SOSA HILL. The Workman, p. 1.

1924-09-13 SLIDE ON WEST SIDE OF SOSA HILL. 25,000 YARDS IN MOTION.



WAGE ADJUSTMENTS

Silver employees. There were no changes made in the basic schedules of rates for silver employees. The index on living costs rose from 137.41 as of July 1, 1924, to 142.44 as of July 1, 1925. The increase in cost of living did not call for a revision of silver-rate schedules, however, since for the past several years the basic hourly rate has been carried at from 1 to 3 cents an hour higher than the indicated rate computed on the basis of the index kept of living costs. While on the basis of indicated living costs, the basic hourly rate for unskilled labor was maintained from $2\frac{1}{2}$ to 3 cents higher than the corresponding rate in 1914, yet toward the close of the year some divisions were experiencing difficulty in securing competent men at the rates authorized. The settlement of many West Indians on the land, together with the rapid development of the banana industry, has apparently absorbed the former surplus of West Indian labor left over from construction days.⁹³

⁹³ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-10-14 MIRAFLORES AERIAL VIEW, LOOKING EAST NORTHEAST.



MUNICIPAL ENGINEERING

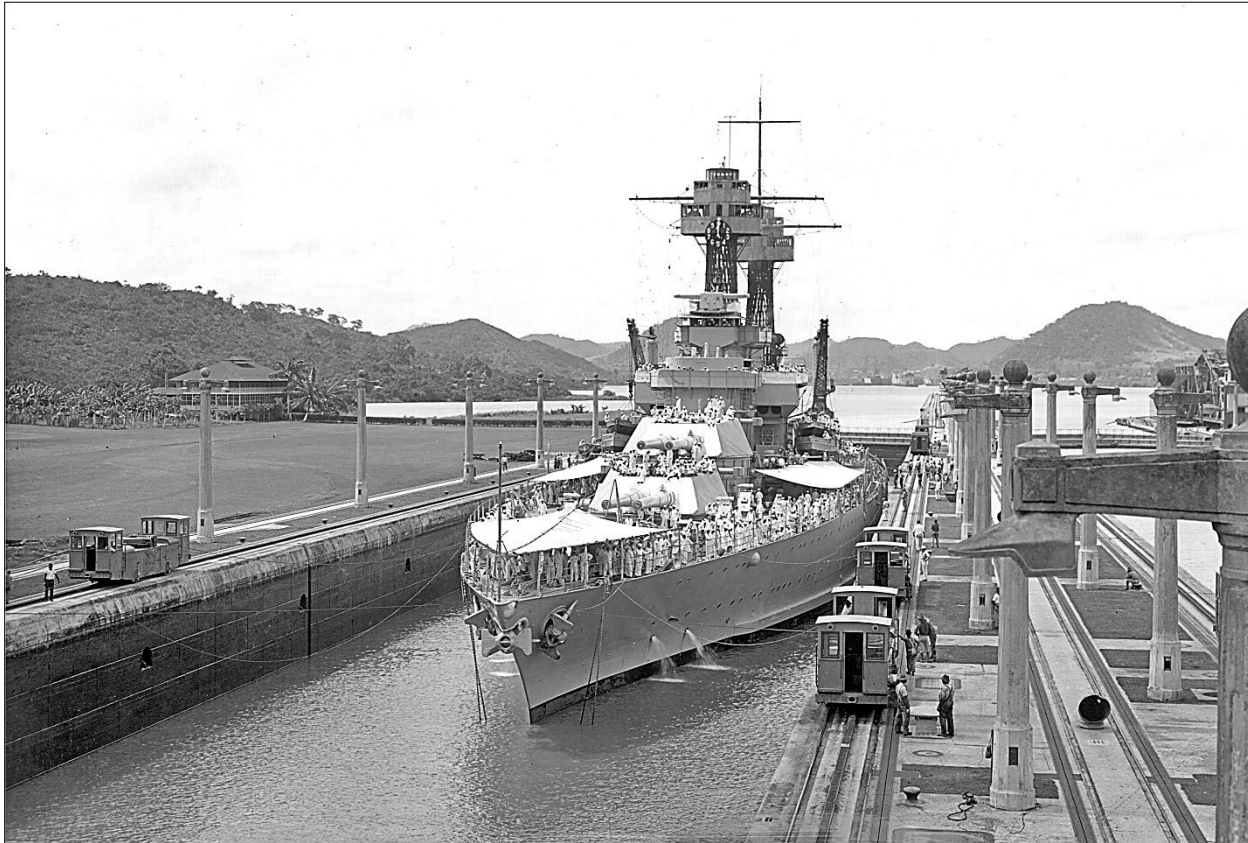
The output of the three filtration plants, the amount of water consumed by the cities of Panama and Colon, and the sales of water to vessels, are shown in comparative form in the following tabulation:

	October, 1924.	October, 1923.	October, 1922.
	<i>Gallons.</i>	<i>Gallons.</i>	<i>Gallons.</i>
Pumping stations.....	669,924,750	608,456,250	655,199,000
Filtration plants.....	403,905,000	364,951,000	374,462,000
Water consumed by Panama.....	93,603,000	85,622,000	85,529,000
Water consumed by Colon.....	50,215,500	48,057,000	59,548,750
Sales of water to vessels.....	10,934,550	9,720,980	7,983,967

Work was continued on installation of freshwater cooling system at the Balboa cold storage plant; the work was 95 per cent completed at the close of the month.⁹⁴

⁹⁴ The Panama Canal Record - Volume XVII, 1924-1925.

1924-10-16 U.S.S. WEST VIRGINIA, SOUTHBOUND, WEST SIDE, MIRAFLORES.

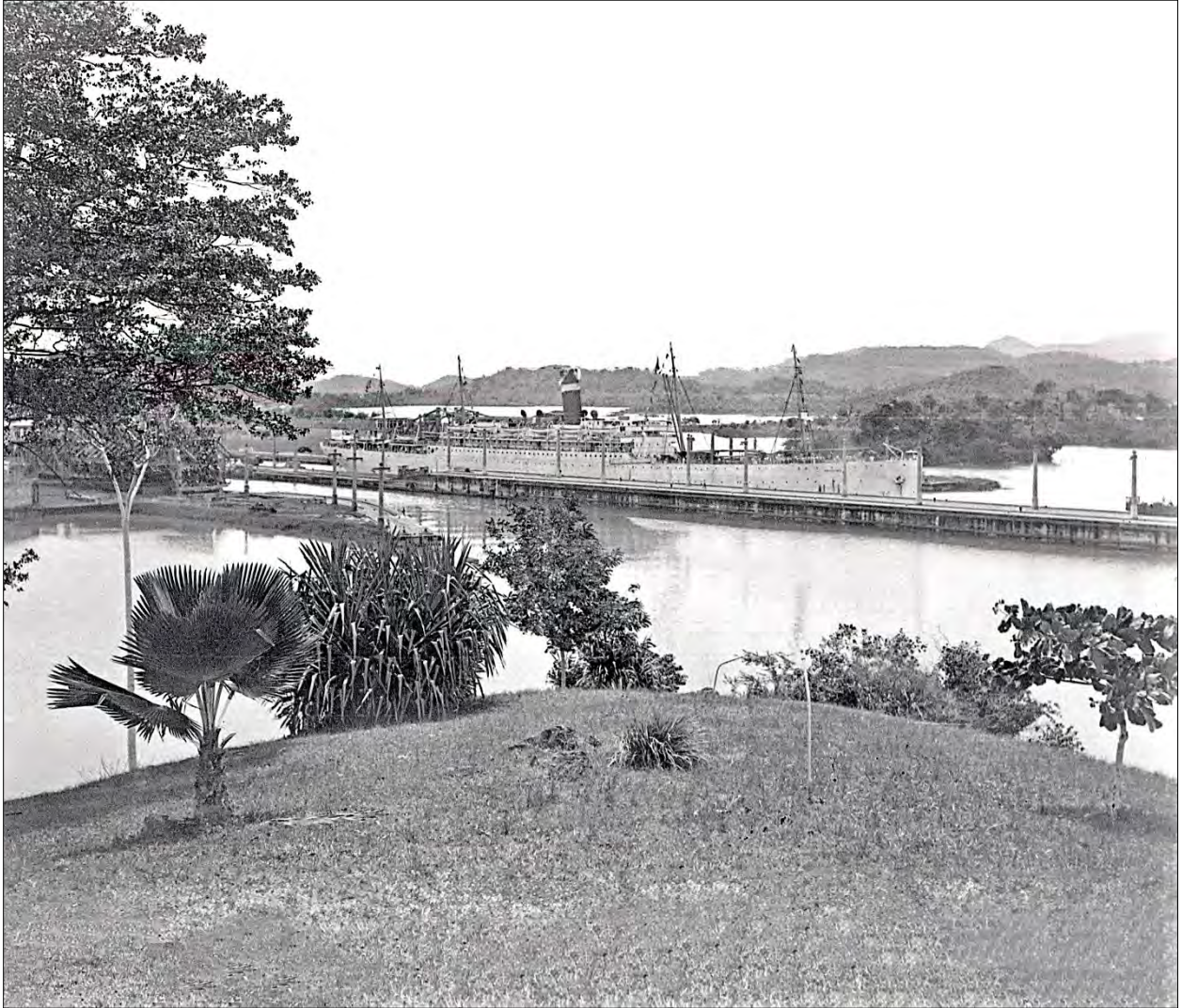


West Virginia was built between her keel laying in 1920 and her commissioning into the Navy in 1923. The ship spent the 1920s and 1930s conducting routine training exercises, including the typically annual Fleet Problems, which provided invaluable experience for the coming war in the Pacific.

West Virginia was moored on Battleship Row on the morning of 7 December 1941 when Japan attacked Pearl Harbor, bringing the United States into World War II. Badly damaged by torpedoes, the ship sank in the shallow water but was later refloated and extensively rebuilt over the course of 1943 and into mid-1944. She returned to service in time for the Philippines Campaign, where she led the American line of battle at the Battle of Surigao Strait on the night of 24–25 October. There, she was one of the few American battleships to use her radar to acquire a target in the darkness, allowing her to engage a Japanese squadron in what was the final action between battleships in naval history.⁹⁵

⁹⁵ [https://en.wikipedia.org/wiki/USS_West_Virginia_\(BB-48\)](https://en.wikipedia.org/wiki/USS_West_Virginia_(BB-48))

1924-10-22 S.S. MANCHURIA LEAVING MIRAFLORES LOCKS AND ENTERING THE LAKE.



SS Manchuria was a passenger and cargo liner launched 1903 for the San Francisco-transpacific service of the Pacific Mail Steamship Company. During World War I the ship was commissioned 25 April 1918 - 11 September 1919 for United States Navy service as USS Manchuria (ID-1633).

The design of Manchuria was identical to Mongolia which was delivered as Manchuria was being fitted out. At the time of construction, the two vessels were the largest passenger ships built in the United States and were built for 346 first class, 66 second class and 1,300 steerage passengers.

Manchuria began service on the New York to Hamburg with the American Line in December 1919. In 1923 she was shifted to New York - Panama Canal - San Francisco run to operate under another subsidiary of International Mercantile Marine Co., the Panama Pacific Line.⁹⁶

⁹⁶ [https://en.wikipedia.org/wiki/SS_Manchuria_\(1903\)](https://en.wikipedia.org/wiki/SS_Manchuria_(1903))

1924-10-22 S.S. MANCHURIA, NORTHBOUND, EAST SIDE, PEDRO MIGUEL



World War I: The United States Shipping Board requisitioned Manchuria and Mongolia from the Atlantic Transport Line, a subsidiary of International Mercantile Marine, and turned the ships over to the Army in January and February 1918. The two ships were among the largest transports with a troop capacity of around 5,000. In late January 1918, with the "shipping situation getting out of hand" the regular meeting of top government and military logistics people decided to create the Shipping Control Committee (SCC) that was ratified in early February with the consequence the Army turned its entire fleet over to the SCC resulting in the Navy operating those ships. Manchuria was acquired by the Navy from the United States Shipping Board on 10 April 1918 and commissioned USS Manchuria (ID-1633) at New York on 25 April 1918 and assigned to the Cruiser and Transport Force. The troop transport made 13 round trips to Europe with nine of them after the Armistice, bringing approximately 39,500 troops home.⁹⁷

⁹⁷ [https://en.wikipedia.org/wiki/SS_Manchuria_\(1903\)](https://en.wikipedia.org/wiki/SS_Manchuria_(1903))

1924-11 S.S. F.J. LUCKENBACK, NORTHBOUND, EAST SIDE, PEDRO MIGUEL.



HOURS OF OPERATION

There appears to be a wide-spread belief that vessels were once dispatched through The Panama Canal upon arrival at either terminal at any hour of the day or night, and that some four years ago, to reduce the expenses of operation, the night shift was taken off, so that vessels are now frequently delayed from 8 to 16 hours awaiting transit. This is erroneous. Under present schedules a northbound vessel arriving at Balboa anchorage prior to 2 p.m. or a southbound vessel arriving at the Cristobal breakwaters prior to 1.30 p.m. can proceed through the canal on the same day. Vessels arriving later in the afternoon or during the night are held over until the following morning. Approximately the same rule has applied ever since the canal was opened to navigation. Economy is not the only or the principal reason for this restriction.⁹⁸

⁹⁸ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-11 S.S. J.C. DONNELL, TANKER, SOUTHBOUND, CUCARACHA [GAILLARD CUT].



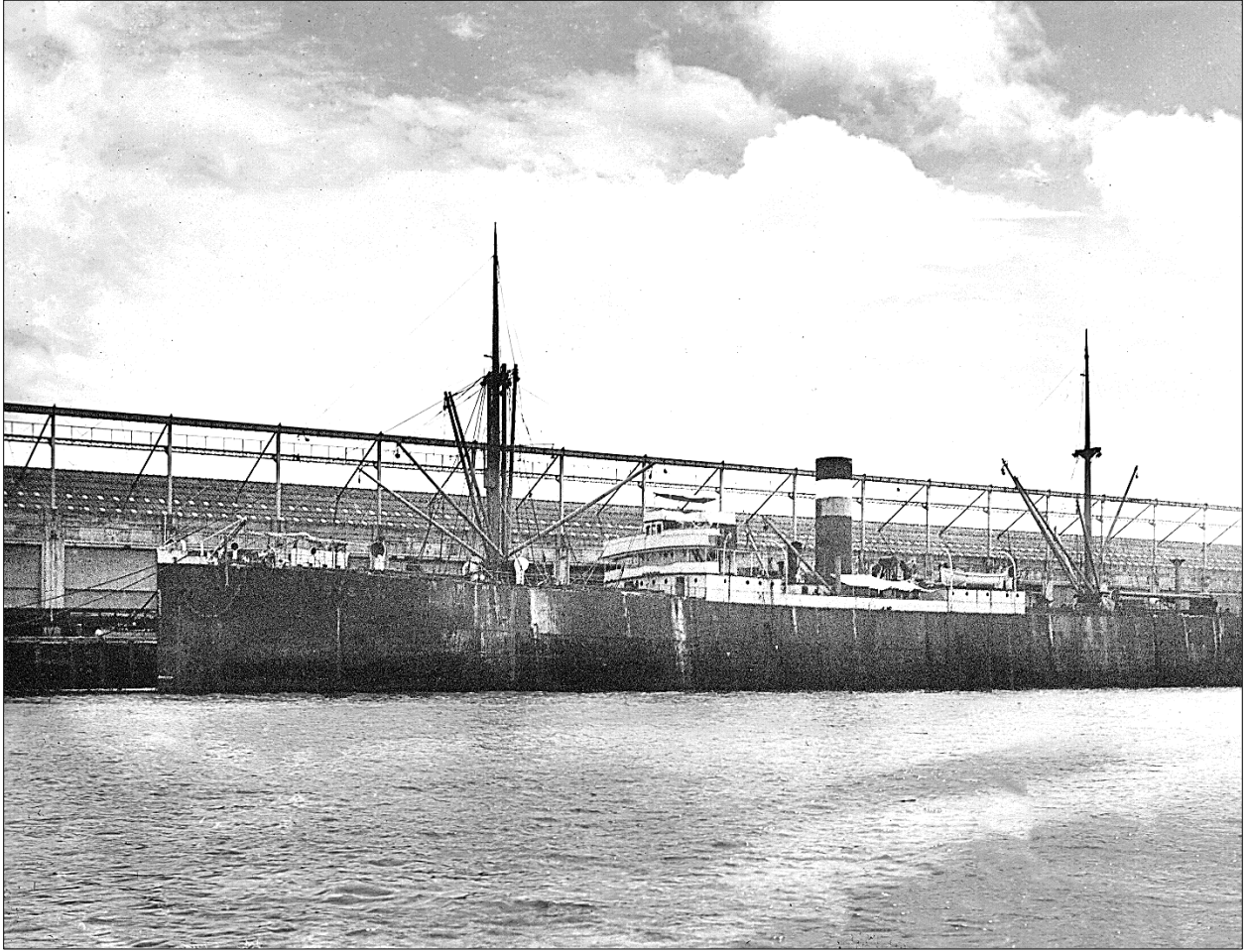
Originally built in 1917 by the Newport News Shipbuilding & Drydock Company of Newport News, Virginia, she served the Atlantic Refining Company of Philadelphia, Pennsylvania as SS J. C. Donnell. Acquired by the US Navy through the War Shipping Administration (WSA) on 22 January 1943, and commissioned the same day, as USS Pasig (AO-89). The lone ship in her class, she was the first of only two U.S. Naval vessels to be named for the Pasig River which flows through Manila on the Philippine Island of Luzon.

Pasig was intended for use as a storage tank in the South Pacific near New Caledonia but was replaced by concrete barges. She decommissioned and was delivered to WSA on 25 September 1943, and was struck from the Naval Vessel Register on 11 October 1943.

Returned to her owner, Pasig reverted to her original name and served as SS J.C. Donnell until scrapped in 1947.⁹⁹

⁹⁹ [https://en.wikipedia.org/wiki/USS_Pasig_\(AO-89\)](https://en.wikipedia.org/wiki/USS_Pasig_(AO-89))

1924-11 S.S. SISAK, DOCK 18-A, BALBOA.



At the close of the fiscal year 1924 The Panama Canal's wrecking tug Favorite was assisting the steamer Sisak, aground on the coast of Ecuador. The Sisak was not refloated until July and was then towed to Balboa, arriving there on July 14, 1925. In December 1924, The Panama Canal's tug Tavernilla went to the assistance of the motor schooner Arabia, aground on the San Blas coast east of Colon, and pulled her off. On November 27, 1924, the Favorite was dispatched to St. Thomas, Virgin Islands, to raise a floating dry dock, which had sunk in the harbor. It was found that this dock, which was nearly 60 years old and had not been properly maintained, could not be raised at a cost commensurate with its value, and the Favorite returned to the canal, arriving there on December 15, 1924. Panama Canal salvage equipment was used in assisting the steamship Anglo Egyptian, which struck the bank in the Gaillard Cut while in transit through the canal on December 22, 1924.¹⁰⁰

¹⁰⁰ The Panama Canal Record - Volume XVII, 1924-1925.

1924-11 S.S. WASHINGTON MARU, NORTHBOUND, EAST SIDE, PEDRO MIGUEL.



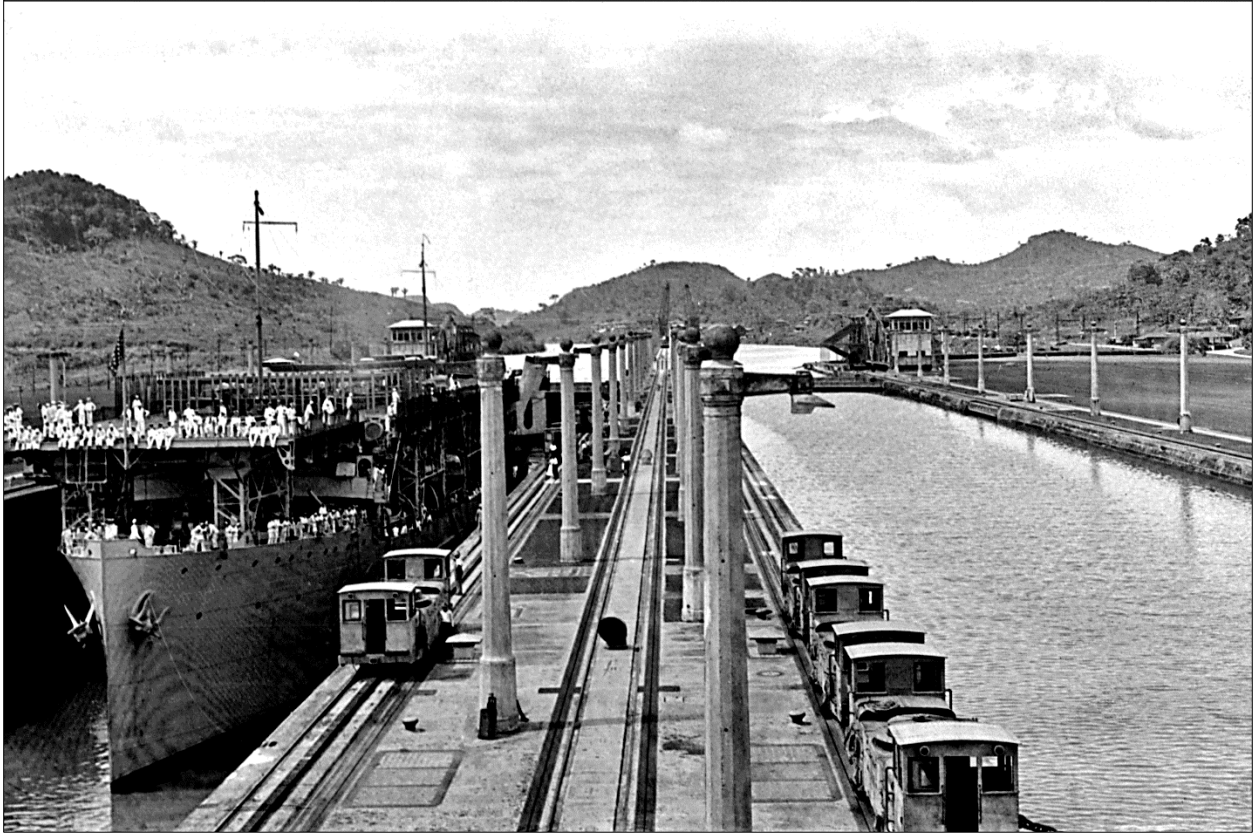
LOCKAGES AND LOCK MAINTENANCE

An automatic safety device for towing locomotives, intended to prevent these machines from coasting down the steep inclines out of control, as has occurred in the past through negligence of the operators, with resulting damage to equipment and in some cases loss of life, was designed and tested, and it is now being installed on all locomotives.

It consists of an interlocking system on the traction clutch mechanism, which will prevent the operator from shifting clutches between any designed points above and below the inclines, and an automatic wedge brake which will stop the locomotive if it runs by these points with the traction clutch in any but the two-mile position. The brake can also be operated manually if necessary.¹⁰¹

¹⁰¹ Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.

1924-11-16 U.S. AEROPLANE CARRIER "LANGLEY" IN PEDRO MIGUEL LOCK. WATER AT MIRAFLORES LAKE LEVEL +53.4.



Transit of the Aircraft Carrier "Langley"

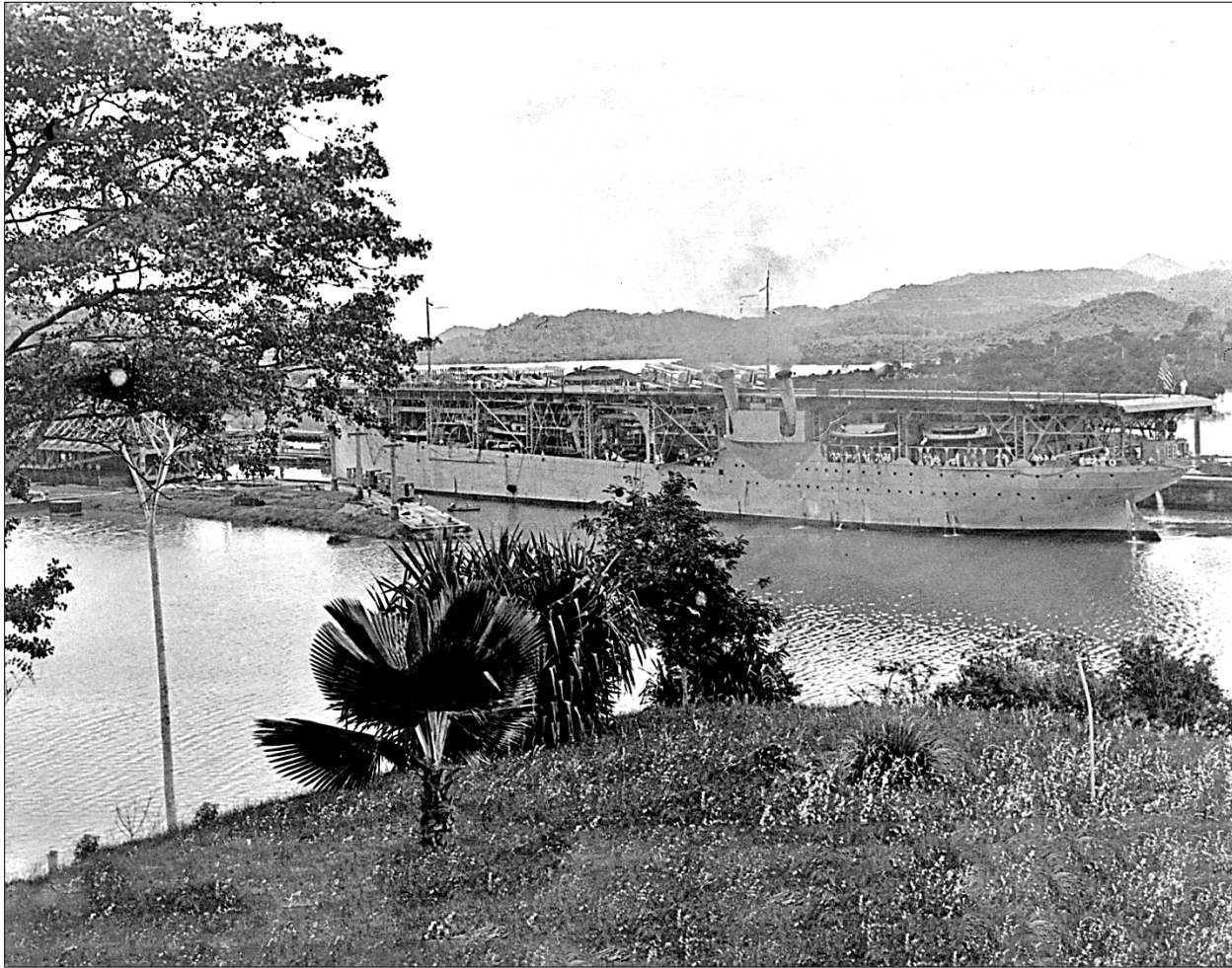
The United States Navy aircraft carrier Langley arrived at Cristobal on the morning of November 16 from Pensacola, Fla., and transited the Canal to Balboa the same day. She tied up at Balboa docks, scheduled to proceed on November 19, on her voyage to San Diego, Calif.

Originally built as a Navy collier during the war and named the Jupiter, she was later converted into an aircraft carrier at the Norfolk Navy Yard, commissioned on March 20, 1922, and renamed the Langley in memory of Prof. Samuel Pierpont Langley, distinguished American astronomer and physicist, and one of the pioneers in his conceptions of the possibilities of aviation.

The Langley is 542 feet in length with a beam of 65 feet and has a displacement tonnage of 12,700 tons. She carries a personnel of 36 officers and 431 enlisted men.¹⁰²

¹⁰² The Panama Canal Record - Volume XVII, 1924-1925.

1924-11-16 U.S. AEROPLANE CARRIER "LANGLEY" ENTERING MIRAFLORES LOCKS FROM THE LAKE.



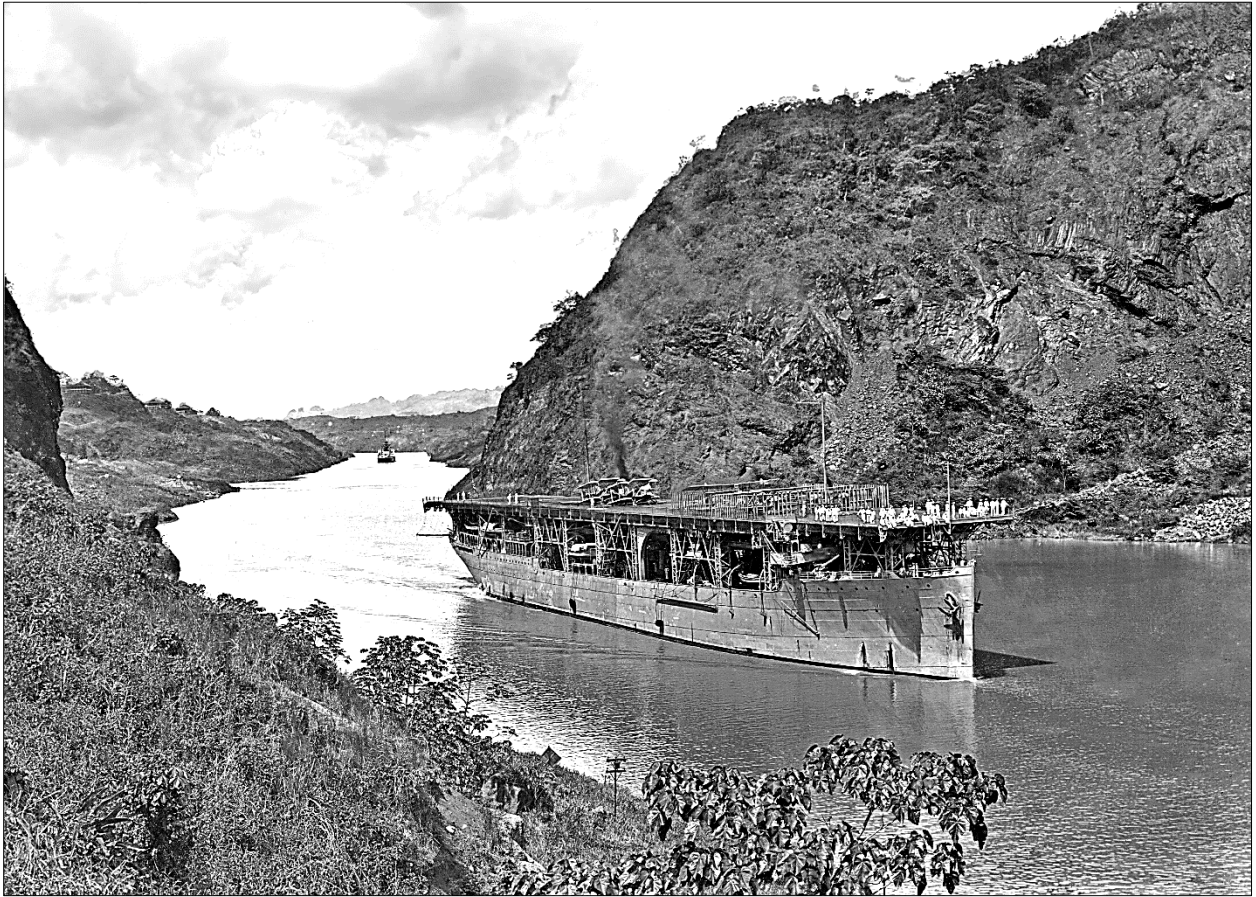
Transit of the Aircraft Carrier "Langley"

The Langley is equipped with the latest type of catapults for launching seaplanes from the flying deck, has all facilities for storing, fueling, and repairing both land and sea planes, and is unusually complete in radio equipment. An areological laboratory is maintained below the flying deck for weather forecasting.

This is the third visit of the Langley to Canal waters; she having been here during the fleet maneuvers in the spring of 1923. She transited the Canal southbound to Balboa on March 17, 1923, and returned northbound on March 30, 1923, with the Atlantic fleet. Despite the fact that she has been here before, the novelty of the craft attracted many visitors to the docks at Balboa to see her.¹⁰³

¹⁰³ The Panama Canal Record - Volume XVII, 1924-1925.

1924-11-16 U.S.S. LANGLEY, SOUTHBOUND, CUCARACHA [GAILLARD CUT].



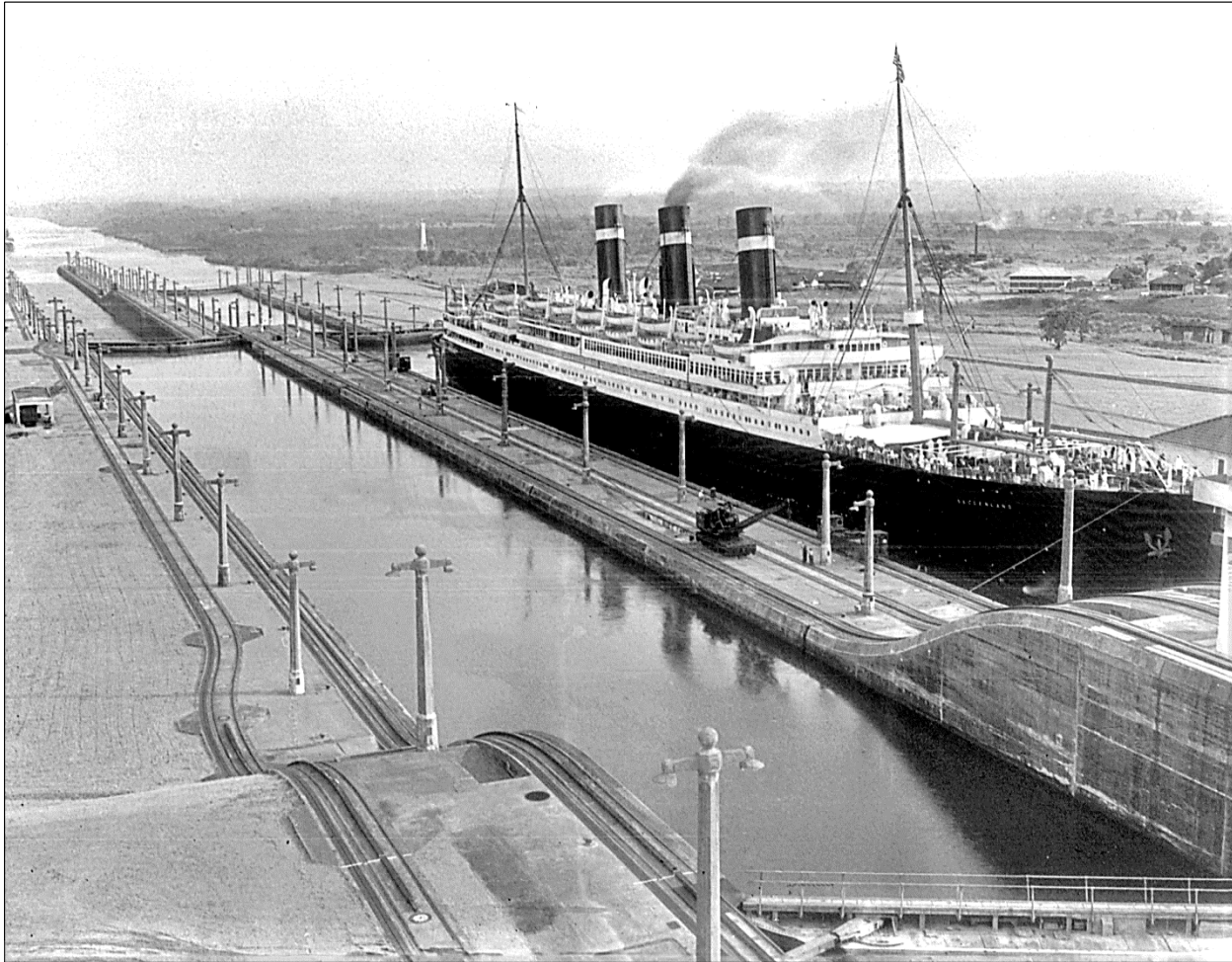
By 15 January 1923, Langley had begun flight operations and tests in the Caribbean Sea for carrier landings. In June, she steamed to Washington, D.C., to give a demonstration at a flying exhibition before civil and military dignitaries.

In 1924, Langley participated in more maneuvers and exhibitions and spent the summer at Norfolk for repairs and alterations, she departed for the West Coast late in the year and arrived in San Diego, California, on 29 November to join the Pacific Battle Fleet.

Captain Joseph Mason "Bull" Reeves, who commanded all fleet aircraft, went aboard the Langley in October 1925. During the 1925 maneuvers aboard the Langley, Reeves developed dive-bombing tactics to attack enemy ships. In 1927, Langley was at the Guantanamo Bay Naval Base. For the next 12 years, she operated off the California coast and Hawaii, engaged in training fleet units, experimentation, pilot training, and tactical-fleet problems.¹⁰⁴

¹⁰⁴ [https://en.wikipedia.org/wiki/USS_Langley_\(CV-1\)](https://en.wikipedia.org/wiki/USS_Langley_(CV-1))

1924-12-12 OPERATION PANAMA CANAL. S.S. BELGENLAND IN MIDDLE CHAMBER, GATUN LOCKS.



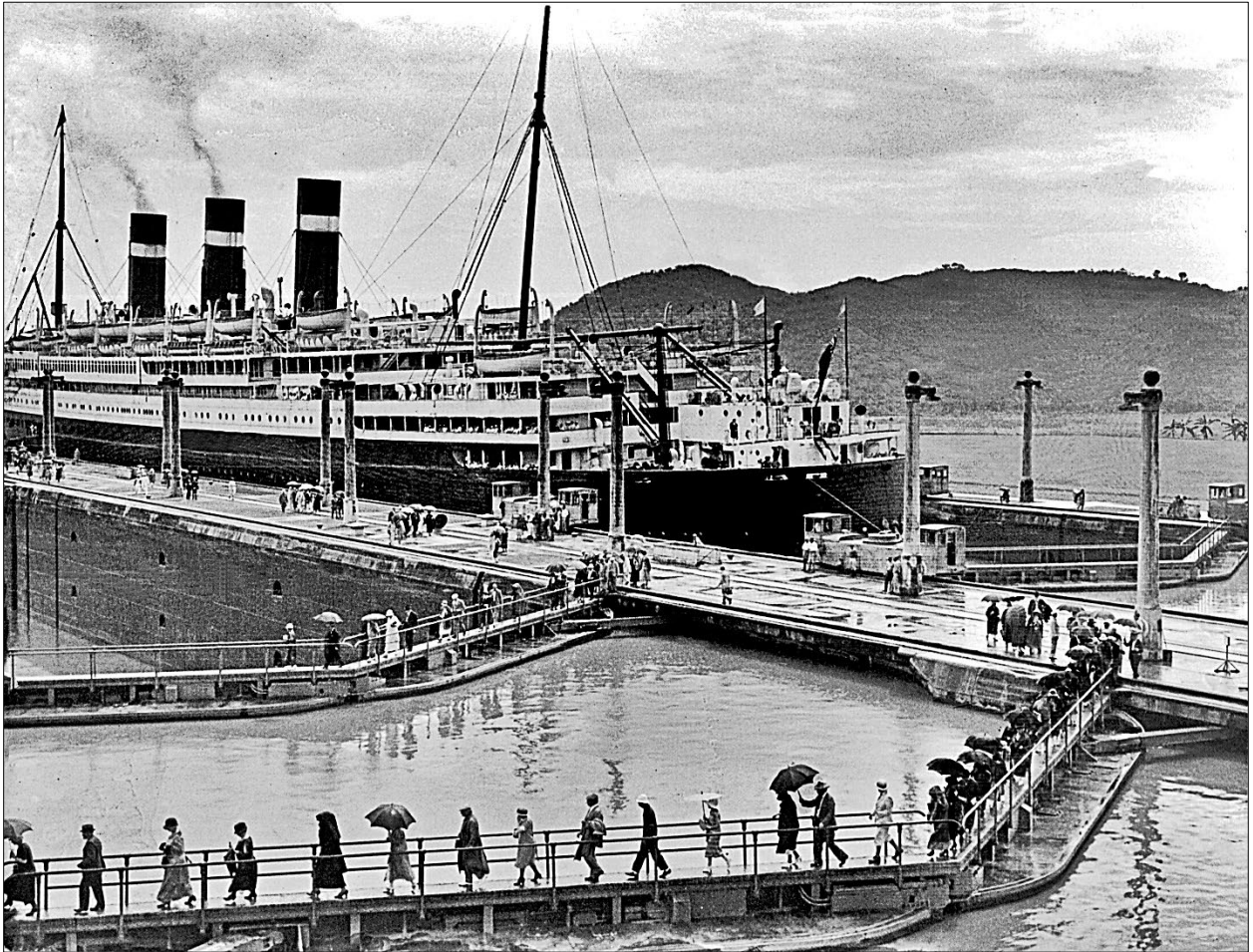
Transit of the "Belgenland" on a Tour Around the World

The steamship Belgenland of the Red Star Line transited the Canal on December 12 on a cruise around the world, with a party of 391 tourists on board. This is the first of the large tours of the 1924-25 tourist season to reach the Isthmus and was under the management of the American Express Co., which has handled around the world tours through the Canal for the past 2 years.

The Belgenland, formerly the Belgic, is said to be the world's ninth largest ocean liner and in some respects is the largest commercial vessel to transit the Canal to date. The Belgenland is 670 feet long as against the 675 feet 4 inch length of the Mount Vernon, which transited on October 29, 1919; was 78 feet in beam as against 77.9 feet for the Empress of Canada, transiting on January 17, 1924...¹⁰⁵

¹⁰⁵ The Panama Canal Record - Volume XVII, 1924-1925.

1924-12-12 OPERATION PANAMA CANAL. S.S. BELGENLAND IN PEDRO MIGUEL LOCK.

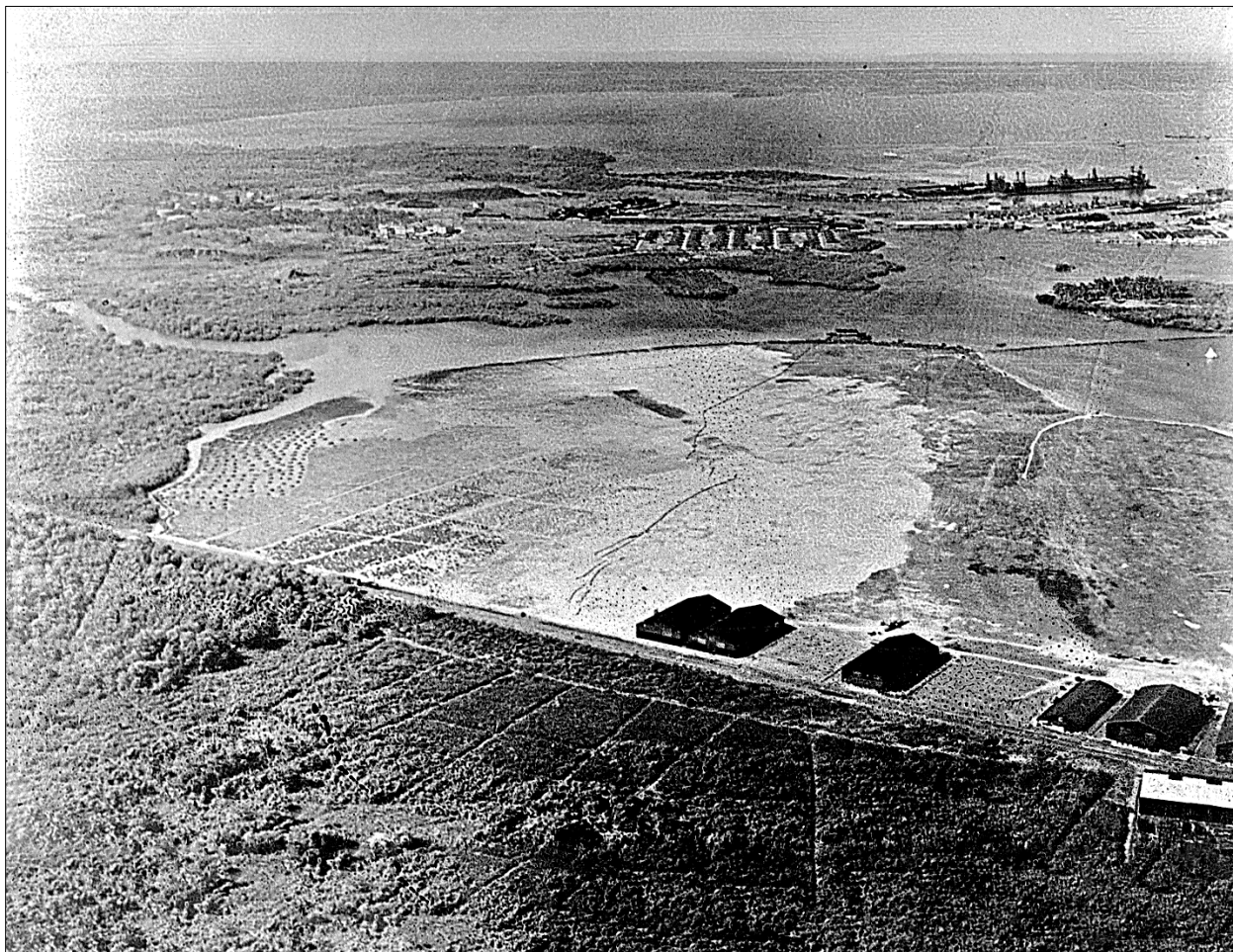


... was of 27,132 tons registered gross, 15,352 tons registered net, 18,874 tons Panama Canal net, and paid \$16,412.50 in tolls as against 22,622 tons registered gross, 13,637 registered net, 16,959 Panama Canal net, and \$16,855 tolls for the steamship America which transited the Canal on February 6, 1920.

Thus, the Belgenland, while not paying the greatest amount of tolls, established new records for commercial vessels for beam, registered gross and net, and Panama Canal net tonnage. Her net measurement under United States rules, which determined the amount of tolls, was 13,130 tons. The United States net of the America was 13,484 tons. After visiting California ports, the Belgenland will proceed to the Far East and return, to New York via the Suez Canal and European ports, having been on the trip 4[^] months, steamed 28,000 miles, and visited some 14 countries and 60 cities.¹⁰⁶

¹⁰⁶ The Panama Canal Record - Volume XVII, 1924-1925.

1924-12-18 SUCTION DREDGE ACTIVITIES: SHOWING CONDITION OF FILL ON FRANCE FIELD. CORTESY U.S. ARMY AIR FORCES.



The total excavation during the month [November 1924] was 338,375 cubic yards, as follows:¹⁰⁷

Cubic yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
4,200	1,050	3,150	Maintenance.....	Gaillard Cut, West Culebra slide.....	<i>Gamboa.</i>
53,400	.....	53,400	Maintenance.....	Gaillard Cut, La Pita Point improvement project.	<i>Gamboa.</i>
17,750	4,450	13,300	Maintenance.....	Gaillard Cut, Cucaracha Village slide.....	<i>Gamboa.</i>
15,250	15,250	.....	Maintenance.....	Gaillard Cut, La Pita bend.....	<i>Gamboa.</i>
8,350	2,100	6,250	Maintenance.....	Gaillard Cut, Cucaracha Village slide.....	<i>Paraiso.</i>
45,200	45,200	.....	Maintenance.....	Gaillard Cut, Obispo and Las Cascadas reaches..	<i>No. 83.</i>
1,500	1,500	.....	Maintenance.....	Pacific entrance, Miraflores P. I.....	<i>Paraiso.</i>
60,400	60,400	.....	Maintenance.....	Pacific entrance.....	<i>No. 83.</i>
38,200	.....	38,200	Project No. 1.....	Pacific entrance, Miraflores P. I.....	<i>Paraiso.</i>
3,100	800	2,300	Project No. 1.....	Balboa inner harbor.....	<i>Paraiso.</i>
90,000	90,000	.....	Aux. maintenance....	France Field.....	<i>No. 86.</i>
1,025	1,025	.....	Aux. maintenance....	Sand from Chame.....	<i>La Valley.</i>

¹⁰⁷ The Panama Canal Record - Volume XVII, 1924-1925.

Epilogue

The fiscal year 1924 was by far the most prosperous in the history of the Panama Canal since 1914. I am sure that 2024 will set the record for highest revenue since the Canal's inauguration 110 years ago. A comparison (1924 vs 2024) of routes, cargo, users, revenue, population, diseases, water consumption per capita, new water reservoirs, etc. would be interesting.

Remembering historical events from 100 years ago is important for preserving collective memory and fostering global understanding. These works serve as educational tools, offering insights into the events that have shaped our world. Additionally, they contribute to cultural awareness, inspiring discussions, research, and even creative works that keep history alive and relevant for future generations.

Now imagine a monthly magazine focused on the historical memory of the Republic of Panamá and the Panama Canal every month; 5, 10, 25, 50, 75, 100, 125, 150 years ago. It would provide continuous education and awareness about the Canal's rich history, highlighting key events and dates, photos, maps, milestones, publications, and developments that have shaped its legacy.

Such a journal would serve as a living archive, preserving stories and perspectives that might otherwise be forgotten. It could also foster a deeper connection between the local community and the Canal, promoting pride in this significant engineering feat. Also, by offering regular updates and insights, the magazine could engage both historians and the general public, ensuring that the Canal's historical significance remains relevant and appreciated over time.

Believe it or not, the Historical Memory Unit (Office of Corporate Affairs) of the Panama Canal made it possible three years ago (August 2021). Since it was a national and international publication, it had to have the approval of the Office of Communication and Corporate Image. However, after months of negotiations, the initiative failed. The most ironic thing about the above is that as soon as the publication of this monthly magazine was rejected, most of its improvements and technological advances were used in the old and primitive periodical PDF publications of the Panama Canal.

Bibliography

Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1923.
(1923). Washington: Government Printing Office.

Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1924.
(1924). Washington: Government Printing Office.

Annual Report of the Governor of the Panama Canal for the Fiscal Year ended June 30, 1925.
(1925). Washington: Government Printing Office.

Claybourn, J. G. (1925, November-December). Relay Pump Barge on the Panama Canal. *The Military Engineer*, Vol. 17, No. 96, pp. 510-513.

Hernández, J. (2009). *My Life Story - How my family on my father's side ended up in Panama*. San Antonio, Texas, USA.

Massot, J. (2022). *DARIEN RADIO STATION - THEN (1914-1935) AND NOW (2022): Restoration, preservation, and tourism promotion of some Panama Canal historical sites in abandonment*. Panamá: Amazon Books.

The Panama Canal Record - Volume XVII. (1923-1924). Canal Zone: The Panama Canal.

The Panama Canal Record - Volume XVIII. (1924-1925). Canal Zone: The Panama Canal.

Walrond, H. (1924, 09 13). BIG SLIDE AT SOSA HILL. *The Workman*, p. 1.

Other books

Publications at AMAZON BOOKS / Keywords: "Jaime Massot" - Books printed in the United States of America					
#	Title	Date	Size	Pages	Language
1	<i>El Panamá de Ayer y Hoy "En Imágenes": 1904-1938</i>	2008-12	8.5 x 11	188	Spanish
2	<i>El Panamá de Ayer y Hoy "En Imágenes"</i>	2011-05	8.5 x 11	208	Spanish
3	<i>El Panamá de Ayer y Hoy "En Imágenes"</i>	2012-06	8.5 x 11	182	Spanish
4	<i>Voluntad para lograr lo imposible</i>	2011-03	8.5 x 11	458	Spanish
5	<i>El Casco Antiguo de Panamá en lápices de colores</i>	2015-08	8.25 x 6	102	Spanish
6	<i>El Casco Antiguo de Ayer y Hoy: 140 años de historia en imágenes (1875-2015)</i>	2015-09	8.5 x 11	24	Spanish
7	<i>El Panamá de Ayer y Hoy - Tres siglos en imágenes</i>	2015-09	8.5 x 11	106	Spanish
8	<i>Un paseo por la ciudad hace más de 100 años</i>	2015-10	8.25 x 6	30	Spanish
9	<i>Ayer y Hoy: Centenario del barrio de La Exposición (1916-2016)</i>	2016-08	8.5 x 11	26	Spanish
10	<i>Conjunto Monumental Histórico del Casco Antiguo y periferia</i>	2016-08	8.5 x 11	102	Spanish
11	<i>Diccionario Ilustrado de Panameñismos</i>	2016-12	8.5 x 8.5	200	Spanish
13	<i>Panama Canal Zone - Then and Now: "A land divided, a world united."</i>	2016-12	8.5 x 11	158	English
14	<i>Imágenes de mi Panamá en 100 páginas</i>	2017-01	8.5 x 11	102	Spanish
15	<i>Monumentos históricos de Panamá según la enciclopedia libre Wikipedia</i>	2017-02	8.5 x 11	238	Spanish
16	<i>Un paseo por la ciudad de Panamá: Photowalk 2015</i>	2017-05	8.5 x 11	46	Spanish
17	<i>Visitas de interés para los turistas (1926): En postales de principios del siglo XX</i>	2017-06	8.5 x 11	112	Spanish
18	<i>Casco Antiguo and surroundings: 10 years in colored pencils</i>	2017-12	8.25 x 6	212	English
19	<i>Análisis del Sistema de Ascenso por Mérito en la Comisión del Canal de Panamá</i>	2017-12	8.25 x 11	130	Spanish
20	<i>Análisis de las Conclusiones del Estudio de las Alternativas al Canal de Panamá</i>	2017-12	8.25 x 11	136	Spanish
21	<i>El Casco Antiguo y alrededores: Diez años en lápices de colores</i>	2017-12	8.25 x 6	212	Spanish
24	<i>Panama Canal Construction (1904-14): Postcards, Tales and Facts</i>	2017-12	8.5 x 11	480	English
25	<i>El Panamá de Ayer y Hoy - En Imágenes: X Aniversario (2008-2018)</i>	2018-06	8.5 x 11	178	Spanish
12	<i>Diez años en la cuenca del Canal de Panamá</i>	2018-09	8.5 x 11	66	Spanish
26	<i>El Panamá de Ayer y Hoy: En fotos, planos y mapas</i>	2018-12	8.5 x 11	178	Spanish
27	<i>From Colon to Panama (1912): Illustrated with historical photos, postcards, documents and maps</i>	2019-06	8.5 x 11	480	English
28	<i>Proyecto de renovación de la ciudad de Colón (2014-2019) - Lo bueno, lo malo y lo feo</i>	2019-08	8.5 x 11	94	Spanish
29	<i>THE PANAMA CANAL 100 YEARS AGO: Illustrated with 100 colored photographs, history and family stories (1920)</i>	2020-12	8.5 x 11	144	English
30	<i>Taboga Island photographs by Ernest "Red" Hallen: Tales and historical information</i>	2022-04	8.5 x 11	58	English
31	<i>DARIEN RADIO STATION - Restoration, preservation, and tourism promotion of some Panama Canal historical sites in abandonment</i>	2022-12	8.5 x 11	110	English

Coming soon...

- AGUA CLARA FILTRATION PLANT - THEN (1910-1944) AND NOW (2022): Restoration, preservation, and tourism promotion of some Panama Canal historical sites in abandonment.
- GATUN TOWN - THEN (1912-2000) AND NOW (2022): Restoration, preservation, and tourism promotion of some Panama Canal historical sites in abandonment.